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# FINANCIAL TIMES

No. 26,152

Tuesday September 4 1973

\*\* 6p

## NEWS SUMMARY

### GENERAL

## Parcel bomb hurts 3 police

A parcel bomb addressed to West Ham Police Station exploded as it was being carried to the station and injured three London policemen, one seriously.

The parcel had been removed few minutes earlier from a open mini car in New Plaistow had close to the police station. The car had been spotted by its owner, who saw the parcel on the back seat and reported it to the police.

Sergeant Lawrence Roberts, aged 45, was seriously injured in face, arms and hands when he exploded. Inspector Ian Thompson and PC Tom Nixon were treated for minor injuries. Scotland Yard said that all the indications were that the bomb was not of IRA origin.

## Whitelaw in new talks

Mr. William Whitelaw, the Northern Ireland Secretary, began a new round of talks with political leaders in the province in an attempt to gain agreement on an all-party conference to discuss issues delaying the setting up of an executive.

To-day, Mr. Whitelaw will see the Rev. Ian Paisley, Democratic Unionist, and—if he accepts the invitation—Mr. William Craig, Vanguard. He has already seen Mr. Brian Faulkner, Ulster Unionist, Mr. Gerry Fitt, SDLP, and Mr. Oliver Napier, Alliance. Page 14

## Podgorny toasts Prince Philip

President Nikolai Podgorny toasted Prince Philip with champagne at a Kremlin luncheon and said: "We are happy to maintain, develop, strengthen business and neighbourly relations."

Britain." In Kiev, Princess Anne, exercising her horse in preparation for defending her title in the European Equestrian Championships, told two persistent photographers to "buzz off."

## Rail collision —seven injured

Seven people were injured when two trains collided at Dorking station, Surrey. The main Waterloo-Bognor line was booked. The injured included a 60-year-old man who was trapped in the wreckage for nearly two hours before firemen cut him free.

## Aircraft hits bungalow

A father and his six-year-old daughter died and his wife and another child were critically injured when their light aircraft hit a cliff-top bungalow at Brixham, Devon, while on a flight from Plymouth to Booker airfield, Wokinghamshire. A witness said: "The aircraft seemed to have fuel trouble."

## Trash kills four

Our people believed to be three men and a woman, died when their Mini car in which they were travelling caught fire after it had been in collision with two lorries at Wadshelf, Derbyshire.

## One home

One bungalow near Messina, Italy, was dismantled and taken away on a lorry by thieves who were watching neighbours and a German man that it had been sold reasonably elsewhere.

## Rifley . . .

£1m bond September prize £50,000 went to the Birmingham holder of bond No. SSL 571.

One 150 aircraft was down in Brockwell Park, south-east London, back to Biggin Hill, from where it was stolen Sunday evening.

## FTF PRICE CHANGES

(Prices in pence unless otherwise indicated)

### RISSES

	FALLS
Treasury 7/3/1963-SS 1751	1
Treasury 9/6 1978 ... 550	1
Assoc. P. Cement ... 125	6
Birkwood Hodge ... 162	6
GEC ... 158	4
Gulf Bros. ... 250	10
Haw Par ... 94	7
I.C.I. ... 234	3
Met. Box ... 242	7
P & O ... 277	7
Rowntree Mackintosh 145	11
Rovco ... 87	6
Tubes ... 372	6
Burmah ... 402	5
Shell Transport ... 278	6
Guthrie ... 300	9
Kuala Kepong ... 122	14
Berjaya ... 245	7
Com. Murdoch ... 310	20
FT Share Information ... 250	25
FT Share Information ... 250	25
International Company News ... 150	20
Labor News ... 150	20
London Stock Exchange ... 250	33
London Stock Exchange ... 250	33
Zam. Copper Inv. ... 50	14

(FT Stock Indices and FT-Actuaries summary Page 51)

## BUSINESS

## Equities index slips to new low

EQUITIES began the two-week account in an atmosphere of uncertainty, and small among market leaders brought the FT 30-Share Index down 4.5 to a low for the year of 409.5.

Most of the companies are thought to be in the final stages of preparing submissions for higher prices—likely to be in the range of 1p to 1p a gallon. These will be claimed to recover the rising cost of crude since when the last award was made.

Only yesterday the Commission allowed increases, averaging +1p a gallon, in most Castrol automotive and industrial lubricants.

Now, the oil industry is faced with the move by Libya to nationalise all the remaining independent companies and to raise prices—action which could well have a chain reaction throughout the Middle East.

Major Abdul Jalloud, Prime Minister of Libya, who has announced proposed swinging price increases, has made it plain the country wants to be paid in a gold convertible currency for higher grade.

He has assured customers that Libya intends to fulfil oil export commitments and maintain the present level of supplies to foreign countries, although Libya's financial reserves meant it could do without oil exports for 10 years.

STERLING weighted depreciation from Smithsonian parities was 17.22 per cent. (17.12 on Friday). Against the dollar the pound lost 201 points to \$2.15641.

MR. ANTHONY BARBER, Chancellor of the Exchequer, was briefed by Treasury officials yesterday on the mortgage crisis. He had spoken to the Prime Minister the night before on the subject of spiralling

CITROËN cars sold in Britain will cost from 4 to 12 per cent. more. Page 25

BRITONS bought 46,943 new cars on hire purchase last month compared with 27,179 in July. Page 14

WILMOT BREEDEN shop stewards yesterday rejected a management pay offer and the eight-day strike at the Birmingham factory continues.

HULL DOCKERS are threatening a series of weekly one-day strikes in support of an £8-a-week pay claim. Page 19

THE BELGIAN UCB group is planning to regain control of British Sticks, makers of cellulose film, with an offer of £1 a share for the 60.35 per cent. of capital not already held. Back Page

BTB, rubber manufacturer, reports first half pre-tax profit up from £1.7m. to £2.42m. Page 20 and Lex

CHILE has devalued the escudo, altering the rate from 300 to 350 per U.S. dollar.

SYNTHETIC RUBBER produced by the Southampton-based International Synthetic Rubber Company is now on average 10 per cent. dearer. Page 23

SIR PHILIP ALLEN, until recently Permanent Secretary at the Home Office, will be chairman of the new Occupational Pensions Board. Page 29

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## Oil: fears of more pressure on prices

BY RAY DAPTER

MAJOR OIL companies in Britain, which were in any case expected to submit new applications for petrol price increases to the Price Commission shortly, are concerned that the Libyan situation will put further pressure on prices this year.

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WILMOT BREEDEN

## Letters to the Editor

BRACKEN HOUSE, CANNON STREET, LONDON, EC4P 4BY

## Company law reform · The Chunnel · Worker participation

Sir.—The White Paper on the Channel Tunnel concept, quired no riots have taken place over the past few months the Government already has necessary for a high speed rail link has been grudgingly existing statutes to require admitted. While the cost of the further disclosure in company accounts? May I suggest that Chunnel promoters, surely it is not fall upon the Government takes this cannot be ignored when pricing the overall cost of the operation and we must now see whether Parliament is prepared to sane a £500m. rail link out of public funds in order to provide a private company with sufficient traffic to produce its "embarrassing" profits.

Require disclosure in the profit and loss account of the costs of goods or services sold. Gross margins and more accurate stock turnover ratios could then be calculated. Investors' interests would be further served if details of selling, administrative and R and D expenses were also disclosed. Many companies of course, already provide this information voluntarily.

Require the presentation of a funds statement (in addition to a balance-sheet and a profit and loss account) on which the auditors will also report. This should be a statement showing sources and uses of all company financial resources, not just working capital. On behalf of the advocates of sub-enquiry reporting, may I also plead for the extension of Section 17 of the Companies Act 1967, to include an analysis of resources and uses of funds by different classes of business on the same basis as turnover and profit or loss. With this information, investors could, *inter alia*, determine whether a company was directing funds to high- or lowmargin activities.

Require separate disclosure, in the balance-sheet or notes thereto of trade creditors and accrued charges. The latter should be stated under separate headings and where the amount of accruals shows an increase or decrease, the source or application of change should be disclosed. Disclosure should only be required if the amounts are material.

Companies are not averse to profit smoothing—concealing too favourable results in inflated accruals. Despite the recent spate of good company results reported, the true profit position of these companies may have been understated. Caveat the Prices Commission.

T. G. Sutton.  
Cranfield Institute of Technology,  
Lancaster Hall,  
Cranfield, Bedford.

## Channel link cost

Sir.—Even in the excellent article (August 29) that Ray Daffer presents on the Channel link it is not possible to cover fully all aspects, and perhaps the most vital at this time is the cost of the proposed rail link from London to Folkestone.

At first denied as a vital part

of the White Paper, it is now admitted that the cost of the rail link is not known. Despite the recent spate of good company results reported, the true profit position of these companies may have been understated. Caveat the Prices Commission.

T. G. Sutton.  
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## Workers' control

Sir.—It is only when complete control, which is to say ownership of a business is vested in the workers, that any possibility arises of their taking part in responsible policy formulation. In other words, workers can only participate in the decisions which affect their working lives.

In conditions in which the roles of capital and labour have been completely reversed, that is when labour employs capital.

Most people recoil from this conclusion, but they assume it to be unworkable. They cannot imagine the operations of a business being its owners, taking its risks and accepting the variable reward of their own endeavours. Nor can they conceive of capital being rewarded (as labour is now) with agreed fixed payments for its use.

This revolutionary concept is, nevertheless, actually being practised in a small way in Britain and some other European countries, but quite substantially in France and Spain. The organisation in France comprises over 500 enterprises operated by 36 000 worker owners. The

worker owners—mostly of northern Spain—produce 885m. of goods annually. The fact is that some tens of thousands of men are currently demonstrating the complete feasibility of a reversal of the roles of capital and labour in industry.

This phenomenon escapes notice mainly because no one concerned has complained or made a fuss. No capitalists have been expropriated, no government subsidies have been re-

quired, no riots have taken place and no one has even found it necessary to stage a demo. Practical men have got on with practical action, unrelated to the normal cries of Left and Right. Indeed the charm of worker ownership is that it removes all the causes of industrial strife. Men in their capacity as workers gain control of their own destinies, but not at the expense of men with money or of those with managerial capacity. Both capital and management are still required and remunerated. Here is the new world for which everyone is seeking, quietly taking shape under our noses. Here is the industrial pattern which will allow us all to escape from the class struggle.

Alastair Campbell,  
Old House,  
Muir of Ord,  
Ross-shire.

## Profits and efficiency

Sir.—Your important editorial of August 28, on "Profits and Efficiency," makes the point that improved efficiency must be allowed its reward whether this is in terms of profit to the company or productivity pay to the employee. Otherwise investment will dry up and shop-floor co-operation in improvement will be increasingly inhibited.

There are many voices, including the CBI, raised to protect profit margins and investment but far too little attention is being given to stimulating employees to contribute to increased productivity. Productivity payment as a principle seems to be out of favour probably because of a few much publicised inflationary "productivity agreements" made in round the regulations during the previous "freeze."

The much larger number of well-designed, closely controlled agreements received no publicity then or since and are not remembered. It needs to be said that effective productivity agreements can be made, that they can raise productivity per hour very substantially and that they can be concluded over a long period of time.

An effective productivity agreement involves a good deal of hard work. In drawing it up both sides must define both generally and in detail what they are conceding and what they will gain. In addition there are a few well tested rules. The first is perhaps most important, that no additional money should be paid until the terms of the agreement have been implemented. The last, almost equally important in its long-term effect,

is that the terms of a regular

ratios—the return capital being than other bodies. We are, how

ever, very conscious of the fact that this wrangling has been going on for 10 years and that the present situation in the manufacturing industry is far from acceptable.

Judging by the reaction of industry to these reports it is obvious that management sets great value by information which is comprehensive and up to date—especially in these days of frequent changes in economic and industrial environment.

C. D. Borkowski,  
Inter Company Comparisons,  
81, City Road, E.C.1.

## Return on capital

Sir.—I was very interested to read (August 22) that the Monopolies Commission has published figures of average return on capital for both the manufacturing and service sectors of industry. These are very valuable indicators indeed.

What is disappointing is that the figures quoted only go up to 1970. Admittedly it is virtually impossible to obtain a big enough sample of accounts relating in 1973 to show a meaningful comparison.

But 1971 and 1972 figures are available. The business ratio division of Inter Company Comparisons has produced business ratio reports for a considerable number of sectors of industry. These show for both individual companies and in total and average for the sectors of industry major management broader view of the profession

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J. D. Borkowski,  
Inter Company Comparisons,  
81, City Road, E.C.1.

## Accountancy training

Sir.—May we, as a body of international accountants, take this opportunity of using the columns of your newspaper to state how much we deplore the current bickering correspondence on this subject.

While being a world-wide

organisation for the

profession

we must take a much

broader view of the profession

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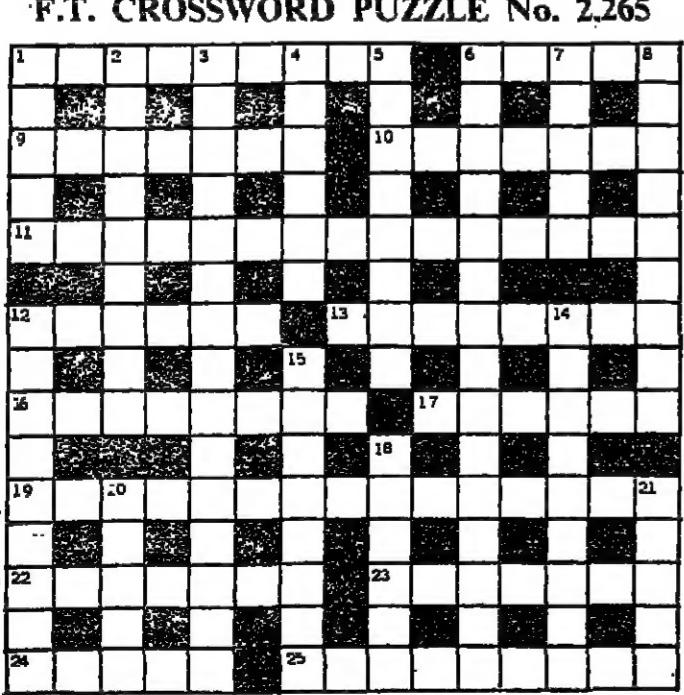
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## F.T. CROSSWORD PUZZLE No. 2,265



**AROSS**  
1 Noblewoman admits fifty—  
that makes it innumerable (9)  
2 Transport for Dr. Hill? (5)  
3 Old worker accepts nice  
change (7)  
10 Receipts—thanks to sovereigns  
(7)  
11 Conclude the argument with  
one's final breath (4, 3, 4)  
12 The way to current contro-  
versy (8)  
13 Jack's half-bottle? (8)  
15 Bid to intensify fourfold (8)  
17 Regrets losing right birds (6)  
19 One out of his element like  
the angler's catch (1, 4, 3, 2, 5)  
22 Turn set around for delegate  
(7)  
23 It is presumptuous to send on  
in advance (7)  
24 Groups in classes (5)  
25 The gravity of stupidity (8)  
**DOWN**  
1 Right in the money but a  
commercial failure (5)  
2 Exposed and bareheaded (9)  
3 Just a day in other words  
(6, 4, 5)  
4 One or the other or neither  
without point (6)  
5 Placed in employment (8)  
6 Working the seams in-  
correctly to aggravate a  
situation (4, 6, 5)

SOLUTION TO PUZZLE  
No. 2,264

**DISACCOMMODATED**  
**ESTABLISHED**  
**STAILED**  
**PWEET**  
**HODDER**  
**REMAINDEER**  
**IMAGINE**  
**RAVING**  
**GUARANTY**  
**MIEANT**  
**WANTWIT**  
**ACADEMY**  
**SCHOOL**  
**ALLEGED**  
**SHIRT**  
**TAKE**  
**CHANCE**  
**ALIVE**  
**PERIOD**  
**ACADEMY**  
**SPEECH**

## NORTHERN IRELAND

—6.00-6.50 p.m.

Scene Around Six, 10.25-10.55 The

French Way, 11.47 Northern

Ireland News Headlines, 12.00-12.15

Emulsion, 16.00-16.50 p.m. Look

North from Leeds, Manchester,

Newcastle); Midlands To-day

(from Birmingham); Look East

(from Norwich); Points West

(from Bristol); South To-day

(from Southampton); Spotlight

South-West (from Plymouth).

10.25-10.55 North (from Leeds).

Northern Inquiry, 11.00-11.15 The

West (from Liverpool); 12.00-12.15 The

North (from Manchester); 12.30-12.45 The

North (from Newcastle).

10.25-10.55 Pass the Buck, 11.47

News of Wales.

Scotland—6.00-6.50 p.m. Report-

ing Scotland, 10.25-10.55 Festival

27 from the Edinburgh Interna-

tional Festival. 11.47 Scottish

News Headlines.

## ATV MIDLANDS

10.30 a.m. Women To-day, 11.00

The Big Picture, 11.30-11.45 The

Young, 12.00-12.15 The Young

News, 12.30-12.45 Women At Work,

1.30-1.45 The Young, 1.50-1.55 The

Young, 1.55-1.58 The Young, 1.58-1.59 The Young.

10.30 a.m. The Young, 11.00-11.15 The

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# Heinz Holliger

by GILLIAN WIDDICOMBE

This year Edinburgh has associated with farmyard and a deliberate assault on the squalid avant garde. A high-spirited, hand-picked assault, of international calibre, far removed from the kind of playful prattling that seems to be sheltered by impressive titles. From Stuttgart, the un-called Schola Cantorum came; singers as skilled in the arts as inventors of contemporary art, raising as the inimitable actress Cathy Berberian. And original Miss Berberian came for two performances of her latest "A la Recherche de la Jeune Perdue . . ." recital, first and several months ago at the Tabeth Hall. There were two percents by Les Percussions de Strasbourg, and several featuring the Swiss oboist Heinz Holliger. So Peter Diamond has added, at last, a contemporary to the Lord Provost's musical chain.

Heinz Holliger's contributions ranged from the fascinating to the silly. The most important, however, (unable to attend all with open improvisations. But at the Lord Provost's oboe and orchestra. This was his Stebbings' the post-improvisation and departed, bored blue. Sorry, children, I did answer to the concert. I did something performance by But no one would have abandoned the excellent concert on Saturday morning by Les Percussions de Strasbourg, except for ear drums too tender from a Festival hangover. Cage's First Construction (in metal) opened the programme, as standard repertoire. Tona Scherchen's Shek made inventive use of Chinese instruments and considerable humour; but the Xenakis Persephassa was clearly the hit of the morning. The six percussionists were ranged round the audience, in Leith Town Hall, and played with spatial dimensions for some 30 minutes. The piece fell into obvious movements, ranging from a thunderously aggressive opening section to a long scherzo-like episode on triangles and woodblocks, and a spectacular round in which a regular fixed beat theme was passed from one player to the next, growing faster in pulse, deeper in pitch. Indeed, Xenakis set up such clear patterns that one can conceive and conquer. But the choral work he had given for the Stuttgart Schola antoniana was rather less exhilarating, and trumped by the arrival from Mauricio Kagel. His Dona nobis pacem struck the vowels (to a 6/4 e) with such intensity for intelligible rhythmic textures, but the piece ended, with short snatches of flourishes resembling a codas, or who made a long and one was able to detect a tiny brilliant semi-comic interpretation, using vocal sounds usually performance.

## Albert Hall

# Maderna's Mahler

by MAX LOPPERT

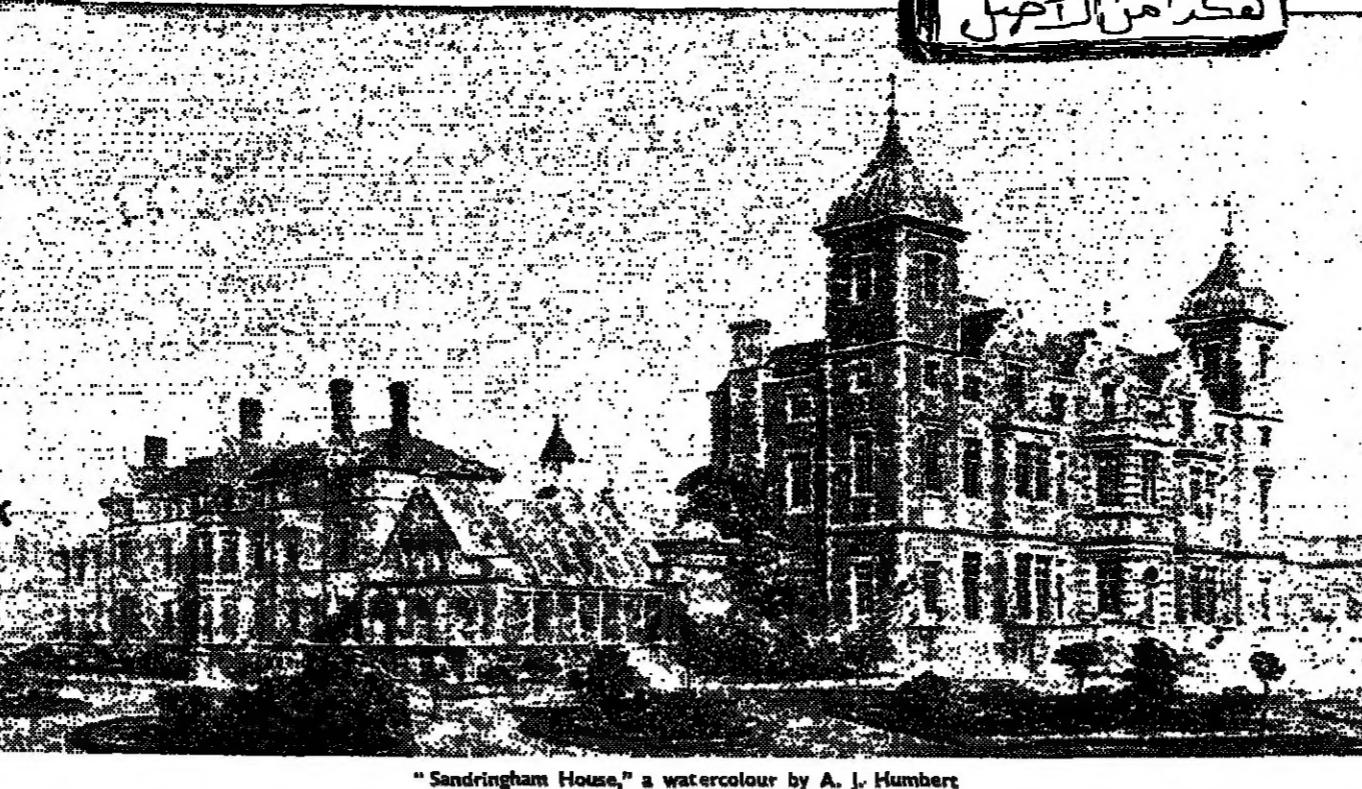
On Friday night the Italian composer-conductor Bruno Maderna conducted a Prom programme of Schumann and the conductor's approach to tempo (extremes favoured, whether of exceptional slowness for the first movement—or of the Ninth Symphony, on an unusual briskness for the last), to earlier occasion in London; but this was his first appearance at the Proms. It proved, at least as far as the symphony is concerned, to be of exceptional interest.

It was Klemperer's Law that conductors who compose are better than conductors who don't. For all the instances in which this could be shown to be was original, and imaginative, and freshly perceived, let us hear more of Maderna's Mahler—not least for the powerfully committed response he won from the orchestra. Anyone who has heard, just to take one example, Maderna's beautiful Violin Concerto, with its conclusion of high strings fading away into thin, disembodied lyricism, will understand a little of why, on Schumann's late Violin Concerto demand that its interpreters bring to it every ounce of concentration and involvement. The soloist, the young German violinist Christiane Edinger, made a nervous start, with insecure intonation and shakiness, but quickly imagined—all tone. She recovered later on to evoke a deeply creative and Romantic phrasing; but the orchestral playing under Mr. Maderna maintained its air of thin, so to speak, and finding insights therein far removed from the quotidian round of cloudiness and lack of focus to the very end.

# Gloriana

by RONALD Crichton

The Proms' present to Benjamin Britten for his 80th anniversary was a concert performance by Sadler's Wells Opera Gloriana, the coronation opera it was later rehabilitated for the latter company. Mrs. Maderna's production deserved rather than helped enjoyment on Sunday. It was a concert reading with the orchestra lined up at the front, and attempt at action beyond a scene-a-waving which would have been better left out. Though performance was mostly good, it improved greatly as it went. I was particularly impressed by a second place, from the point of view of audience left, because hers is a voice of patrion on audience left, and does not carry well in the thing a concert rendering does best. Hall, a mysterious place draw attention to is the number and variety of brilliantly-worked ensembles.



"Sandringham House," a watercolour by A. J. Humbert

## Victoria and Albert Museum

# Victorian energy

by DENYS SUTTON, Editor of Apollo

Interest in the Victorian world grows apace. This is understandable, for it is increasingly realised that this epoch not only marked the apogee of British power but had a rich creative life as well. We hardly need to be reminded that this was the age of the great novelists. Dickens, Thackeray, Trollope and George Eliot and of such poets as Swinburne and Tennyson.

Their contribution was complemented, though not so an exalted level, by the many painters active during the period. Turner towers over the others, a master of intense visual observation and able to create a world of shimmering colour.

With others a sense of proportion has to be retained and they can hardly be considered as serious rivals to the men of the age.

One should perhaps emphasise that a discerning band of enthusiasts, who include H. R. Hitchcock, John Betjeman and Mark Girouard, have already written much which illuminates the architecture of the period.

Indeed we are fortunate in our generation in having so many architectural writers who combine knowledge and a sense of style.

Nevertheless, as we have been shown in recent years, painters such as Burne-Jones and D. G. Rossetti had qualities which were hardly to be found elsewhere; and Pre-Raphaelitism ranks as a European movement. Whistler, like Turner, is a case apart, for he possessed a sense of painterly quality which was not shared by most of his contemporaries in this country.

The general revival of interest in the Victorian world has necessarily meant that inquiry has taken place into the achievement of his decorative arts.

Here, the Victoria and Albert Museum has taken a lead and in 1971-72 it staged an impressive and valuable show of ecclesiastical art from the Victorian period.

What is also made clear in the catalogue, which is a masterly document, it deserves to be exhibition is the way in which

private collectors have been

greatly enhanced by reading the

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NATIONS

## AMERICAN NEWS

# Social Huge demonstrations by Allende supporters planned

BY HUGH O'SHAUGHNESSY, LATIN AMERICA CORRESPONDENT

**UPPORTERS OF THE Governor of President Salvador Allende are preparing massive demonstrations of support for him on to-morrow's anniversary of his victory in the Presidential election of 1970 while the opposition circles there is a continuing preoccupation with ways & turning him out of office and persuading the armed forces to cooperate in his overthrow.**

All the Government parties are making strenuous efforts to win every supporter they can, voter, man, woman or child, on the streets in a gesture of solidarity with Dr. Allende.

In Santiago, five columns of marchers are likely to total several hundred thousand people, are to converge there the Presidential palace in the late afternoon. As is traditional in these circumstances, workers in the public sector will be allowed off work to participate.

This afternoon, the funeral of a Communist student and a workman, killed in a road accident on Saturday while they were doing voluntary food distribution work to circumvent the lorry owners' strike, promises to be a significant curtain-raiser to to-morrow's demonstration.

The precedents are not totally irreproachable but, the writer said, they offer a quick and easy way of unseating President Allende by simple majority in Congress. The opposition commands a majority in both Houses of Congress. Up to now, circulation has centred round the opposition's chance of pushing

acts of violence continue throughout the country as a result of the lorry owners' strike, which has been going on since July 26, as strikers and strike-breakers clash. Some 500 incidents of terrorism have been recorded, which have so far cost the lives of seven people.

In Parliamentary circles, opposition thinking is veering towards the technique of pushing through Congress a motion declaring Dr. Allende unfit to command.

In a long article in the Right-wing Santiago daily *El Mercurio*, a noted constitutional lawyer claimed that Article 43 of the Constitution, declaring the President unfit to govern had been used in 1951 against President Jose Manuel Balmaceda at the instance of the Chilean Navy and against President Carlos Ibanez in 1931.

The Court of Appeal in Valparaiso to-day considers the navy's demand for the lifting of the Parliamentary immunity of Senator Carlos Altamirano, the Socialist Party leader, and deputy Oscar Garretón. Secretary General of the Left-wing MAPU, who are accused of being the instigators of unrest in naval ranks last month.

SANTIAGO, Sept. 3.

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## U.S. chrome decision attacked

BY ADRIAN DICKS

WASHINGTON, Sept. 3.

**THE BYRD Amendment permitting the importation of strategic materials into the U.S. from Rhodesia, which does more harm than good to the interests of the Administration, will be more damaging to America's standing in Africa and its posture at the UN.**

This is the central conclusion of a report on the effects of the amendment almost two years after its passage, by the Special Rhodesia Project of the Carnegie Endowment for International Peace, published here to-day.

The report finds that although the Amendment had some success in lowering the prices charged for Soviet chrome ore, the U.S. has actually become more dependent on Soviet suppliers, which now account for some 55 per cent. of total imports, since the amendment came into force.

The authors also conclude, and quote in support of their position the view of the White House, that the Carnegie Report states that the "national security" argument used by supporters of the Amendment is of little relevance. They argue that comparatively small

quantities of chrome ore are required for defence-associated purposes, and that the U.S. stockpile, even with the reduction proposed by the Administration, will be enough to meet foreseeable needs.

However, the domestic U.S. ferro-chrome industry, which lobbied hard in favour of the Amendment, appears to have been seriously weakened by its provision allowing not just chrome ore but processed ferro-chrome to be imported among some 72 materials. As a result of this increase of cheap imports, most noticeably from Rhodesia itself and from South Africa, two of the four largest American ferro-chrome producers have ceased production of the alloy since the Amendment was passed in October 1971.

Quoting U.S. official figures, the Carnegie Report states that Rhodesia, with over 60 per cent. is now the leading source of its ferro-chrome production overseas in order to compete.

Among the two leading producers, one, Air Reduction Corporation, has had no interest in the Rhodesia question since it is supplied by long term contracts with the USSR. But the other, Union Carbide, has said that it will be forced to move its ferro-chrome production overseas in order to compete.

There is a number of foreign investment conditions in certain areas, improvement of productivity in the fishing and sugar cane industries, growth in raw hide exports, building of new port facilities and the purchase of five fishing ships at a total cost of \$3m.

A more detailed chapter was destined for the textile industry, comprising concrete steps to be taken in the internal wool market and the setting up of a specialised wool commission.

Although reactions towards the plan are hard to guess, it seems as a whole, that the military are trying to impose their own operative rhythm on their policies and programmes, but notwithstanding the highly controversial ideological scheme.

It is hard to guess if they will be able to move the administration apparatus with the required quickness and efficiency.

Nicholas Colchester tries to keep his cool in New York City

## 'If you can't stand the heat . . .'

THERE HAVE now been seven run up flights of stairs. They days of ferocious heat in New York in skyscrapers of frigid little electricity in winter because most people have central heating and electric fires are scarce. But when summer comes the air-conditioners thrash through million windows are set off, their controls are set at "hi-fan" and "sup-req-chill," and they roar through the hot spells consuming quantities of electricity.

The subways — tube trains — are designed to melt the stoutest morale. They are built on the cut-and-cover principle and their roofs are the black asphalt of the streets sucking up the sun's rays with great efficiency. On the platforms the temperature is 105 degrees. In the trains this is bumped up by body heat to a rate that doubles.

The temperature has been close to 100 degrees over this period and the air humid. There are better places in the world, and certainly damper ones, but the annual spell of "Big Heat" in New York City has special features. In the first place New York business life carries on at the same energetic pace. There are no languid motions or siestas. The business men still bustle about the city with ties sharply knotted, fedoras perched and heavy black brogues briskly tramping.

The Court of Appeal in Valparaiso to-day considers the navy's demand for the lifting of the Parliamentary immunity of Senator Carlos Altamirano, the Socialist Party leader, and deputy Oscar Garretón. Secretary General of the Left-wing MAPU, who are accused of being the instigators of unrest in naval ranks last month.

The precedents are not totally irreproachable but, the writer said, they offer a quick and easy way of unseating President Allende by simple majority in Congress. The opposition commands a majority in both Houses of Congress. Up to now, circulation has centred round the opposition's chance of pushing

energy fiasco. New York uses more electricity in winter because most people have central heating and electric fires are scarce. But when summer comes the air-conditioners thrash through million windows are set off, their controls are set at "hi-fan" and "sup-req-chill," and they roar through the hot spells consuming quantities of electricity.

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Last Tuesday a subway train crammed with rush hour passengers became stuck in its tunnel when an archway of ancient construction collapsed onto the front coach. One thousand travellers were trapped with the temperature well above 100 degrees and with the train suffocated with smoke as only subways can be. They suffered the for twenty minutes, standing shoulder to shoulder, until the rescue squads reached them and let them stagger out onto 42nd Street. Every summer there seems to be an incident like this, and every time a tube train groans to a halt in its bread-and-butter tunnel, each commuter thinks that his number is up.

Then there is the annual cent. At this stage lifts begin to

smoothly, steering New York clear of those blackout evenings when the job becomes:

"Where's the chairman of Con Ed?" Answer: "He's out in Central Park looking for glow-worms."

Another feature of the New York summer is the fire hydrant.

When the heat is on, Con Ed,

the New York electricity company, is called, exists in a state of war-alert, juggling millions of watts between its voracious customers and urging them to turn off the appliances that over the rest of the year have been persuaded by every means to buy. Con Ed's generators run hot. Its cables sputter and perspire, hard-hats in small vans race from one smoking man-hole to the next.

Seven days of the sort of heat stretches Con Ed to cracking point, demand peaks in the early evening at over 8,000m. watts of power and Con Ed generally has

to hold it at that level by reducing the voltage by up to 8 per

cent. At this stage lifts begin to

have second thoughts between children cool themselves and floors and television pictures shrink.

Apart from a blackout in the borough of Queens, when 27,000 volt feeder cables melted in quick succession, Con Ed has performed pretty well so far this year helped by the sterling efforts of "Big Al." His number one generator that puts out 1,000m. watts, or one-eighth of Con Ed's entire production. At the turn of the decade "Big Al" was prone to turn out or "trip out" when the cable to power units and pumpwater would race around the city turning hydrants off so that small fires in tall buildings can still be fought.

While these high-temperature rituals continue, the weathermen pour over their charts by day and make wry jokes on the TV screens at night. The trouble, they explain, is that the atmosphere over New York City has come to a halt and that this "massive high pressure system" shows every intention of squatting over this city for another five days at least. If it succeeds in doing this we will have the small pleasure of knowing that in the summer heat become a vital source of cool to those of us who have lived through the nastiest New York end-of-August luxury. Fire hydrants are over, heating a 12-foot stretch in above 80 degrees every day.

## Some Canada railmen resist anti-strike law

OTTAWA, Sept. 3.

CANADA'S TRAINS began moving again yesterday as most union leaders obeyed a special law to end the ten-day national rail strike, but resistance by some militant workers prevented full resumption of service.

The CBRT represents 18,000 of the 56,000 non-operating workers who began the national strike. The union includes ticket-sellers, early on Saturday was centred in clerks, truck drivers, janitors and other employees.

Mr. Donald Secord, CBRT national president, said members were asked to meet, discuss the law and future actions, then report their views to leaders this evening. The union would maintain picket lines and expect other workers not to cross them, he added.

But in the east, train and ferry services resumed. Stranded travellers on Newfoundland and Prince Edward Island were moved after days of waiting for renewed boat services.

Railway companies—including the two giants, CP Rail and Canadian National Railways—began calling back their employees soon after most union leaders issued statements in Ottawa on Saturday that they would reluctantly urge their members to return to work.

But leaders of one major union, the Canadian Brotherhood of AP-DL

## Uruguayan army tries to force economic pace

BY BRYAN PALMER

A TIMETABLE for the implementation of some of the general economic outlines approved last week at a special Cabinet meeting, which was also attended by Joint Operations Command high-ranking officers of the armed forces, will start running

soon. It is expected that army personnel will begin inspecting several deposits in Montevideo in search of wool stocks.

There had been a number of foreign investment conditions in certain areas, improvement of productivity in the fishing and sugar cane industries, growth in raw hide exports, building of new port facilities and the purchase of five fishing ships at a total cost of \$3m.

Although reactions towards the plan are hard to guess, it seems as a whole, that the military are trying to impose their own operative rhythm on their policies and programmes, but notwithstanding the highly controversial ideological scheme.

It is hard to guess if they will be able to move the administration apparatus with the required quickness and efficiency.

# Legal & General's General Insurance graph looks just like their Life and Pensions graph

When you think of Legal & General, you probably only think of Life and Pensions.

But we have another side. General Insurance. And in the last three years our General Insurance business has grown as fast as our Life and Pensions business.

Our graph shows you just how steeply our premium income from General Insurance is rising. From around £20 million p.a. in 1970 to an estimated £41 million p.a. now. Over double in three years.

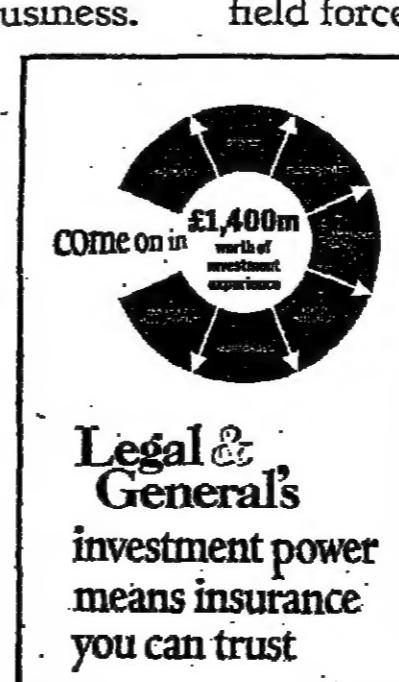
What lies behind this success story? A short while ago we completely reorganised our General Insurance administrative and underwriting structure.

We introduced new policies. New rates. We have strengthened our specialist field force.

Our expertise covers all major types of General Business.

If you would like to find out more, get in touch with your local Legal & General Office.

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Worldwide premium income growth from General Insurance business (life, accident, motor, liability etc.) 1967-1972.

Legal & General's investment power means insurance you can trust

Legal & General

## EUROPEAN NEWS

## W. German export orders higher than expected

BY MALCOLM RUTHERFORD

OFFICIAL HOPES of a decline in demand for West German goods has still not materialised, according to the July order figures issued by the Economics Ministry today. Export orders, in particular, continued to run above expectations.

Orders were down 10.5 per cent. on June, only a little more than normal at this time of year. Domestic orders were down 12.5 per cent., but export orders were off by only 3.5 per cent.—far less than usual.

In the capital goods sector orders were off 7 per cent. on June, but export orders, which normally drop in July, actually rose by 8 per cent. The Ministry comments that the figures are influenced by heavy foreign orders to German shipyards.

Altogether, orders were running nine per cent. higher than current turnover, so that des-

pite all the Government's stability measures and the latest re-evaluation of the D-Mark, German order books are still getting longer. Even the fall in home orders may be only a repetition after the unusually high figures to beat the investment tax in May.

The Economics Minister, Herr Hans Friedrichs, has commented that July and August are inverkehr months and that only the September figures will show whether demand is slackening. Nevertheless, the sheer volume of orders in hand suggests that it will be some time before the economy begins to stabilise.

In the first seven months of the year together orders were up by 22 per cent. on the comparable period of 1972. The orders due were up 20 per cent. on July 1972, though by only 13.5 per cent. if allowance is made for rising prices. Domestic orders in July were up 10 per cent. on

a year ago and export orders by as much as 55 per cent.

The boom in export demands is even stronger in the capital goods field. Where foreign orders were over 80 per cent. higher than in July 1972, Again, the Ministry comments that the rise is only 42 per cent. if shipbuilding orders are excluded, but shipbuilding orders are still there.

The Ministry also reported today a fall in July production. Adjusted on the basis of the number of working days the monthly output was down 15 per cent. in June against a normal fall at this time of year of 11 per cent.

This may have been due to earlier summer holidays, as the Ministry notes. Output was in any case 3.5 per cent. up on July 1972, and in the first seven months of the year was up by 7.5 per cent.

## Minister denies bribe story

BY JONATHAN CARR

WEST GERMAN Technology Minister Horst Ehmké today denied the Federal funds had been used last year to bribe an Opposition Deputy into helping the Government win an important Parliamentary vote.

However, at a foreign Press gathering in West Berlin, Herr Ehmké emphasised his readiness to appear before a parliamentary investigating committee to clear the matter up.

Until then the Minister, who is a leading member of Chancellor Willy Brandt's Social Democrat Party (SPD), declined further details.

The committee began its probe into allegations into political bribery last June. It is due to resume closed sessions to-morrow and Herr Ehmké is expected to appear before it later this week.

Neither Herr Ehmké's statement to-day, nor intensive questioning of government spokes-

men at a Bonn Press conference, in Bonn. A facsimile of the paper in slip has been reproduced in reports linking the Minister with the sum of DM50,000.

The reports say that Herr Ehmké, then Minister in the Chancellery, removed DM50,000 from the Federal cashier's office on April 28, 1972. A spokesman would only say to-day that Herr Ehmké often withdrew sums.

On April 27, 1972, the Government just survived a no-confidence vote. Former Opposition Deputy Julius Steiner has said he helped the government win the secret vote, and was rewarded for this with

DM50,000. Herr Steiner claims the sum was paid to him by the SPD chief whip, Herr Karl Wienand, on the afternoon of the vote. Herr Wienand denies this. It is only certain that on the following day, Herr Steiner paid several months.

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### ITALIAN CAR REGISTRATIONS RISE IN JULY

BY Peter Tumizi

ROME, Sept. 3.

Car registrations in Italy soared in July reflecting the greatly improved production and delivery situation of the Italian motor industry. In July they totalled 153,000 units, against 136,210 in July last year, an increase of 13 per cent.

These figures include imported cars as well as Italian ones but the Italian motor industry accounts for well over 70 per cent. of all sales. A detailed breakdown for July listing the Marseilles, almost the entire workforce of 3,000 North strong controls on immigrant Africans stopped work, and a labour from North Africa.

### N. Africans strike in French race protest

BY RUPERT CORNWELL

PARIS, September 3

MANY THOUSANDS of North African workers in the south of France went on strike to-day in protest at the outbreak of racial violence that has cost the lives of seven Algerians throughout France in the past week.

Unofficial estimates were that some 60 per cent. of the 30,000 North African immigrant labourers in the Bouches-du-Rhône département had joined the movement. At the Fos steel complex under construction near Marseilles, almost the entire workforce of 3,000 North strong controls on immigrant Africans stopped work, and a labour from North Africa.

However the strike movement was opposed by some immigrant organisations, on the grounds that in the present tense situation the most effective way of lowering the temperature would be for Arab workers to continue at their jobs if nothing bad occurred.

At the same time appeals have been multiplying in France for good sense to prevail, following the findings of an opinion poll over the weekend suggesting that over half France's city dwellers were in favour of particularistic policies.

### PROFILE: EUGEN LODERER

## Union power put to the test

FRANKFURT, 8

BY ANDREW HARGRAVE

IF THE spate of strikes in Germany's top concern, industrial heart of Germany, attempting to rebuild a shattered economy, having been depu-

Azain, unlike Brenner's man of Manshausen,

Loderer's path to the top was steep and engineering co-

war in which he had taken part

as a soldier. Stemming from

impeccable working class back-

ground his father was a brewery

worker in Heidenheim, Baden-

Württemberg, where he him-

self was born.

Theoretically, Loderer

which in its full form

only to public companies

ensure the worker a voice

decision-making pro-

activity on supervisory b-

it already exists in the

car industries, is in fact

political issue.

In time, he became chairman

of the works council at the local

wiremesh factory. Then he had

a spell of study at Madison

University, Wisconsin, and at

barely 30 became one of the

post-war honeymoon with the

Germany's top concern,

employers as both sides were

of sales. Herr Loderer i

including the ugly clashes at

Ford, Cologne, has proved any-

thing, it that the country is

increasingly facing the same

problems as other Western

democracies have done in the

past few years.

The growing wage drift fuelled

by inflation: disillusionment with

the crude materialism of the

consumer society coupled with

the equally strong urge to claim

a bigger share of the proceeds:

a widening rift between Govern-

ment and people in industry as

well as politics: increasing

evidence of extremes—these

danger signs are becoming

evident in the Germany of

to-day.

The presence of 25m. foreign

workers, 10 per cent. of all wage

earners, is a further potential

menace as the case of Ford,

where the proportion is more

than one in three, has shown.

For these people, brought into

Germany to alleviate chronic

labour shortages, are made to

do less skilled and hence less

well paid work: they are also

sickened and distrusted by many

of their German fellow workers

and the feelings are often

mutual.

As a result, the trade union

movement in Germany, with a

structure carefully built up after

the war and held up as a model

to other countries, is showing

signs of strain. Disaffection at

shop floor level, no doubt fanned

by extremist groups, is spread

ing, forcing the leadership to

grasp for new answers. None

more than Herr Eugen Loderer,

president of IG Metall (Metal-

workers' union), by far the

largest in the Federal Republic

with a membership of over 2.8m.

one-third of the total organised

manual labour force.

It is also the largest trade

union in the Western world:

catering for the whole engineering,

shipbuilding, electrical,

motor and steel industries. In

a British context, at least in

theory, Herr Loderer combines

the powers of Hugh Scanlon,

Dan McGarvey, Jack Jones,

Herb Jeffreys, Dai Davies as well as a chunk of

the union's 176 branch secretaries,

his first full-time job. In 1959,

he was advanced to regional secr-

etary and, at the same time,

joined the delegate council, the

body which—like the AUEW's

national council—makes union

policy between conferences. Four

years later he took over the

chairmanship of the region and

in 1968, strongly supported by

Brenner, became deputy

chairman.

One of the hallmarks of

German industry is the presence

of employees' representatives on

supervisory boards, the top tier

of Germany's management

system. In its present form it

stems from the days of post-war

co-operation. Its name

"Mitbestimmung" (co-deter-

mination) is revealing—and

ensures that leading trade

unionists are found in the upper

echelons. For instance, Herr

Brenner was deputy chairman of

Krupp, a steel-making end of

Volkswagen, the union men say eas-

### Ireland goes to EEC Court over tomatoes

BY METIN MUNIR

ANKARA, Sept. 3

THE TURKISH Government will not announce which foreign company is to build an aircraft industry

## EUROPEAN NEWS

JULY 1973

## Composers join attack on Soviet dissident

MOSCOW, Sept. 3. COMPOSER Dmitry Shostakovich stream of protest letters to the Soviet Press and radio.

Pravda to-day printed two others letters from groups of workers attacking Sakharov and also reproduced a hostile report from the Austrian Communist Party daily Volksstimme.

Among other signatories to the letter were 12 Soviet composers and music critics published to-day in the Communist Party newspaper Pravda.

Another signature was Aram Khachaturian, Armenian composer best known in the West his ballet suite "Gayane," which includes the Sabre Dance.

The letter "accused Sakharov of making 'abusive attacks' against the Soviet way of life and expressed the signatories' 'deep indignation' at recent statements by Sakharov, father of the Soviet atom bomb."

Sakharov recently defied a personal ban on contacts with foreigners here when he called a Press conference and denounced what he called "injustices in the Soviet system."

He warned Western powers against reaching hasty agreements with the Soviet Union at the next session of the Helsinki security conference.

The official campaign against Sakharov began with the reprinting here of critical reports of the Press conference from foreign Communist newspapers and has been growing steadily with a of the Soviet system.

Reuter

## Austrian hostility to foreign workers

BY PAUL LENDAVIA

VIENNA, Sept. 3. UNDER RISING popular pressure against the massive influx of foreign workers, Chancellor Bruno Kreisky and spokesmen of the Austrian unions have come out in favour of restrictive measures, primarily in Vienna. A demagogic campaign of the largest Austrian popular daily and the forthcoming municipal elections in Vienna have combined to transform the question of the so-called "guest-workers" into a highly-charged political issue.

According to the latest report of the Institute for Economic Research the number of officially registered foreign workers rose by 40,000 to a record level of 240,000 by mid-July. They account for 9 per cent of gainfully employed people (2.6m.).

As, however, the "illegal workers" that is people who come here as tourists and find employment without a labour permit are estimated to total "tens of thousands," the real share of the foreign workers may be over 10 per cent of the domestic labour force.

Every fifth person employed

is a foreigner and in such branches as textiles, catering and metal industry the proportion of foreign labour is well over 15 per cent. The business community issued warnings against a ceiling to be imposed on foreign labour since this would only sharpen the labour shortage and thus give a further push to inflationary pressures.

The unions, however, regard 9 per net of the labour force as the absolute upper limit and are pressing for "strict control" and limitations."

In view of Austria's longest post-war boom cycle, the number of foreign workers during the past two years has jumped substantially and in Vienna alone their number has increased since 1972 from 76,000 to 92,000.

Many of them are exploited landlords who charge exorbitant rents and various areas of the Austrian capital are in danger of becoming slums.

The campaign waged for weeks by the country's largest popular newspaper has already given an ominous stimulus to racial prejudices.

Reuter

## Revaluation of schilling 'not damaging exports'

BY PAUL LENDAVIA

VIENNA, Sept. 3. DESPITE TWO revaluations of the Austrian schilling this year, the major branches of the economy and in particular exports are booming with no sign of an appreciable "cooling off." This is the gist of the latest monthly report, issued by the independent Institute for Economic Research.

The figures clearly show that the gloomy forecasts about a "blow to exports" have not yet been borne out by actual developments. Thus exports in June (for example) were 11.5 per cent up on the figures registered during the same month in 1972.

During the first six months exports, according to provisional statistics, jumped by 15 per cent.

Particularly important is the reference of the survey to the fact that during the past few months exports to Italy and western developed countries, that is areas with currencies against which the schilling appreciated, were rising particularly fast.

By contrast, imports from Japan kept growing despite the revaluation of the Yen while a major role.

Reuter

## Norway still studying oil exploration in North

By Fay Gjester

OSLO, Sept. 3. NORWAY'S MINISTRY OF Industry announced to-day that foreign oil companies will not necessarily be excluded from exploration on the Norwegian continental shelf north of the 62nd parallel.

In a TV broadcast this evening, the Minister of Industry, Mr. Olaf Sjøk Bræk, said the whole question of development north of the parallel was still being studied by his Ministry, and it would be the subject of a White Paper which the Ministry expected to present to the Storting (Parliament) in the autumn.

To-day's official statements followed a meeting with Mr. Sjøk Bræk and the director of the State Oil Company, Mr. A. Johnsen, to clear up what appeared to be a disagreement between them.

Mr. Johnsen had been reported as saying, late last week, that foreign oil companies would be excluded from exploration north of the 62nd parallel—report

which provoked a strong reaction from Mr. Sjøk Bræk, who said oil policy issues such as these were the province of his Ministry and of the Storting.

It subsequently emerged that Mr. Johnsen had been incorrectly reported. The disputed speech, made to a closed meeting in the north Norwegian town of Harstad, apparently merely contained the prediction that development in northern waters might well be entrusted to a trio of Statoil (the Norwegian State Oil Company), Norsk Hydro, and the Saga Petroleum group, backed by a number of leading Norwegian industrial concerns.

On to-night the Director of Saga Petroleum, Mr. Otto Grieg Tiedemand, confirmed that his group was interested in the Storting, consisting of the Left Alliance, the Socialists People's Party, and the independent Socialist Party.

Anti-marketeers have deserted

the Left Alliance to join a new

Party for the Sharp Reduction of Taxes and Public Interference," founded by Mr.

New People's Party. Moreover,

the debate on Norwegian Com-

mon Market entry focused dog breeder who lives in the Labour Party has virtually mono-

Fay Gjester, Oslo Correspondent, reports that anything could happen in Sunday's Norwegian elections, including a sharp shift to the left.

## Almost as many predictions as there are parties



Mr. Lars Kornvold

CAMPAIGNING for Norway's public attention on many other country near Oslo and publishes polished representation of the lege from the Alliance. Labour its rivals to the left, the Com evaluate spending on defence. Labour has also promised fair concessions for the lower income groups, to be offset by continued harsh taxation of large incomes, and without any cutbacks in public spending.

At this stage, however, a socialist victory is by no means certain. The possibility of a non-socialist majority in the Storting cannot be discounted and what then?

Mr. Lars Kornvold, leader of the Christian People's Party and Prime Minister of the present coalition Government would like to see the coalition expanded in the event of a non-socialist victory.

Recent polls had given him about 5 per cent. of the vote which could mean three seats in the new Storting. But the latest Gallup poll, published yesterday, failed to win any win in the Storting, compared with 73

year, many former Labour sup-

porters will be voting instead for the new Left Alliance, including both Communists and SPF. The Alliance is expected—according to an analysis of a recent poll—to win about 10 seats in the Storting, compared with 73

predicted for Labour.

If that prediction should prove true, the main Labour will lack an overall majority in the Storting, but together with the Left Alliance will have a substantial majority over the five New People's Party as well. His partners in the Centre and Liberal parties have been un-

communicative about this idea, unless the Conservatives and NPP agree not to raise the EEC issue during the four-year term of the new Storting—a condition which the two pro-Market parties were at first indignantly unwilling to accept.

Lately, however, there have been indications that attitudes are softening on both sides. Leading Conservative politicians have commented that the EEC issue is not, after all, very likely to arise again during the life of the next Storting. And anti-

marketeer Mr. Per Borten, former leader of the Centre Party and Prime Minister in the old non-Socialist coalition, has

warned against adopting "inflexible attitudes" in advance of polling day. In a speech last week he said the election could create a situation which would require "unorthodox solutions."

The present Government is a non-socialist minority coalition formed by three anti-EEC parties after Norway's "no" vote in the EEC referendum last year. The three Liberal Party, Christian People's Party and Centre (Agrarian) Party agreed to form a Government when Mr. Trygve Bratteli's pro-European minority Labour Government resigned as a result of the vote against entry.

The Government's Parliamentary basis is narrow. Most parties hold only about a quarter of the seats in the Storting. Without the active support of the pro-European parties, it is doubtful if it can continue in office after the election—even if the socialist parties fail to secure a majority in Parliament.

Whether this support will be forthcoming—perhaps by the pro-Europeans agreeing to join the coalition—is one of the questions marks hanging over the election campaign.

The EEC debate disrupted traditional party structures. Anti-marketeers have deserted

the Left Alliance to join a new

Party for the Sharp Reduction of Taxes and Public Interference," founded by Mr.

Two of the newcomers are

expected to win quite a few seats

from the older parties. On the

right there is Anders Lange's

"Party for the Sharp Reduction of Taxes and Public Interference," founded by Mr.

But the socialists are split, too.

In the past, the Norwegian

support of the Left Alliance.

In response to a direct chal-

lenge from the Right, the Com-

mon Market entry focused dog breeder who lives in the Labour Party has virtually mono-

leisure, however, will distort traditional voting patterns, and could cause freak results in some constituencies. It makes forecasting on the basis of opinion polls, an even trickier business than revealed very little new.

By taking votes from the

traditional parties of the Right

course, tip the balance in favour

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## OVERSEAS NEWS

From a visit to Kabul, David Housego reports that the reforms promised by the new regime are well beyond Afghanistan's resources.

# Islam and nationalism mixed

AFGHANISTAN'S Independence Day celebrations, which the new regime had been expected to use as an occasion to demonstrate its popularity, were abruptly cancelled a short while before they were to occur on August 23. According to some accounts in Kabul the reason was that a handful of people had been caught trying to plant explosives in an arsenal close to the grounds in Kabul where the festivities were to have been held. Others believe that the new Government was fearful of any gathering of the armed forces which normally take part in the ceremonies.

President Mohammed Daud, who had been expected to speak to the nation on Independence Day waited until the following day to make his address. It added little to his previous public statements promising reforms and greater justice. The details he did give, such as a commitment to introduce agricultural and consumer goods co-operatives, minimum wage levels, social security, and improved health and education systems, are for the time being well beyond both the resources of an almost bankrupt country and its disorganised bureaucracy.

### Forthright

The most forthright declaration in his speech was that Afghanistan would not join the military bloc which closes the door for the time being on the possibility of a new Treaty of Friendship with Russia. Presumably, however, Afghanistan, like Iran, could subscribe in principle to the Russian idea of Asian collective security. Mohammed Zahir Shah, former King, fought off continual Russian pressure to go so far, arguing that the Brezhnev doctrine included the inviolability of frontiers, and that Afghanistan could not recognise the permanency of its border with Pakistan. President Daud is a far stronger opponent of what he considers an artificial frontier imposed by the British in 1893 and which divides the Pathan peoples.

The crowds on the streets of Kabul, the absence of troops from all but a few strategic points, the almost daily accounts in the Government-managed military bloc. He has also been

### Planning

It would seem that Sardar Daud's hand is behind the line of policy, the absence of any support through tribal raids or arms smuggling across the border to the concept of Paktunistan—a state that would embrace the Pathans and Baluchis and be linked or incorporated into Afghanistan. In his speech after Independence Day, he talked about an "honourable and friendly" solution with Pakistan. But what is "honourable" to the Pathans would certainly not be considered "friendly" by Pakistan. He also adopted Radio Kabul's new propaganda phrase by speaking of "the rights of the Pathans and Baluchis." This is seen in Kabul as having more appeal to the nationalism of

the Pakistani Baluchis, some of whom are up in arms against President Bhutto than former references to the area as "southern Paktunistan."

Undoubtedly his position has been strengthened by the King's abdication. But Sardar Daud's hopes of uniting the country probably rest on formulating a programme that would concentrate on a mixture of nationalism and Islam. It would have to be radical enough to retain the support of the frustrated educated and semi-educated who crowd into the large cities, particularly Kabul, where they live ill paid or unemployed. Such a programme would imply a Government both autocratic and puritanical. Indicatively, perhaps, the regime's current propaganda has echoes of both Libya and Iraq.

The resurgence of Afghan nationalism could be uncontrollable for both Pakistan and Iran may feel the repercussions first. After making most of the progressions, the Indians earlier this year negotiated with the former Afghan Prime Minister, Mr. Musa Shafiq, a treaty ending the two countries' long-standing dispute over the division of the waters of the Helmand river which runs into south east Iran. The treaty may have been one of the factors that led to the coup. It was opposed by Sardar Daud and was unpopular with the Pathans who regarded it as a sell-out. Musa Shafiq is now being accused of accepting payment from Iran and the treaty is being re-examined.

Sardar Daud is keeping the Pakistanis on edge about whether he intends to give active support through tribal raids or private enterprise, and how to reduce the power of the mulahs (priests), while holding to the tenets of Islam. Strains within the Committee may have helped to delay the appointments of a Planning and Commerce Minister and the establishment of a commission to draft the new constitution.

Without an efficient administration, Sardar Daud cannot hope for an improvement in the economy. And without an improvement in the economy he cannot hope to meet the expectations aroused by the coup of higher living standards and more jobs. Both are immensely difficult targets to achieve. The danger in Afghanistan now is that the ease with which the July coup was carried out will tempt others to follow suit. He also stopped at the Schneller refugee camp near Amman.

# Amin sets tough rules for tourists

By John Warrall

NAIROBI, Sept. 3.

TOUR OPERATORS in Nairobi were slightly staggered today to learn of the tough conditions laid down by Uganda when it re-opens its doors to tourism next month.

General Amin wants package tours and groups to pay the whole of their costs in advance in foreign currency. Tourists must also deposit their passports on arrival at Uganda hotels. They will be given an identity card which they can exchange for their passports when they leave.

Tourists arriving at the border in operators' cars and coaches must transfer to Uganda-owned or operated vehicles, which they must use during their stay.

The Uganda Government has sent a four-man team to Nairobi to promote the tourist industry which collapsed after General Amin closed the borders.

### Waldheim tours Jordan frontier

AMMAN, September 3.

UNITED NATIONS Secretary-General Kurt Waldheim today toured the Jordan-Israel ceasefire line by helicopter and received appeals for help from Palestinian refugees.

On the last stage of a nine-day Middle East fact-finding journey, he flew along the Jordan River valley and visited a refugee camp near Amman.

Officials presented Dr. Waldheim with three memoranda urging the United Nations to find a just solution to the Middle East conflict, based on the withdrawal of Israeli troops from occupied Arab land and the return of Palestinians to their homes.

In the course of his helicopter tour, Dr. Waldheim visited the King Hussein bridge, where Arab and Israeli troops face each other across the Jordan river. He also stopped at the Schneller refugee camp near Amman.

Reuter

# U.S. flood relief scheme begins in Pakistan

KARACHI, Sept. 1.

THE FIRST of six huge C141 area of 33m. acres, of which U.S. transport planes have landed 24m. acres are irrigated annually. At Karachi Airport to help transport petroleum products and other fuels to Lahore and Islamabad. The two-hourly planes, manned by 120 U.S. personnel, have been sent by the co-ordinating committee, established by Washington in answer to Pakistan's request for flood relief aid. They are part of the U.S.\$30m. food relief assistance to Pakistan.

Some 100,000 metric tons of rice are also expected to arrive sugar cane has initially been shorted in the country.

Flood waters, just before draining out into the Arabian Sea, have worsened the situation in the area, and could, according to estimates, inundate an area of about 40 square miles, mostly devoted to paddy cultivation. Elsewhere in Sind and Punjab,

the situation has considerably improved. Colossal losses caused this year it may have to import silver fibre to meet the shortfall. Dr. John McLaughlin, Deputy Special Assistant to President Nixon on refugees and disaster, who undertook an aerial survey of the flood-hit areas of Punjab and Sind, said Punjab has lost about 50 per cent of her crop.

Pakistan's forecast for the current cotton season was 4.2m. bales. Estimates are that at least 25 per cent of the crop (about 1m. bales) has been lost.

International and local weather experts had forecast a heavy rainfall this year but these warnings were taken casually. The irrigation system in the Indus Basin in Pakistan commands abates.

and are likely to be starting

to remain marooned in pockets of wet un-submerged highland in the flooded areas.

The State Governor has

ordered its relief distribution

machinery into swift action to

look after the hundreds of home

less families who have either

collected on the highways and

been mercifully housed away

badly damaged.

Thousands of acres under rice

have been submerged but no

serious damage to the standing

crop has been reported as yet.

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### India seeking new EEC pact

BY K. K. SHARMA

INDIA WANTS to scrap the draft of the commercial co-operation agreement which is at an advanced stage of negotiation with the European Economic Community.

The Indian Government has decided to seek a new kind of agreement which spells out a list of measures aimed at correcting the country's highly adverse trade balance with Europe.

The earlier draft is felt to be inconclusive and merely to present in consolidated form concessions which are being given already by individual Community members or those which are being negotiated in respect of duties on jute and other commodities.

It also takes note of concessions expected to be negotiated at the forthcoming meeting of the General Agreement of Tariffs and Trade (GATT).

In asking for a new form of agreement India is using as a lever the joint declaration of intent embodied in the agreement through which Britain entered the EEC. This stated that problems created for developing Asian countries by tarif

India now feels there is no need to enter into a rapid agreement.

The Ambassador to the Community, Mr. K. B. Lal, has therefore proposed a new draft specifying institutional support for correcting the trade gap and dismantling tariff quotas and internal duties on Indian goods.

It also seeks an international division of labour by giving over to India industrial fields in which this country has a comparative advantage.

It also takes note of concessions expected to be negotiated at the forthcoming meeting of the General Agreement of Tariffs and Trade (GATT).

The draft also provided for the formation of a Joint Commission which would be a permanent forum for further talks with the EEC. Nothing was said specifically about the kind of work that a joint commission would do.

He said that on January 1, 1974, Britain would, as part of its agreement on EEC entry, have to impose a tariff of 40 per cent on jute imports. But he was certain this would be offset by the opportunities offered by a reduction in the overall EEC

tariff.

In a message quoted by the New China News Agency today, Phnom Penh said the United States knew that their final defeat in Cambodia "is inevitable and imminent."

"They have made a plan to flee hastily from Phnom Penh as soon as the Cambodian people's National Liberation Armed Forces launch a big offensive against Phnom Penh . . ."

Although the PRG participated in last year's non-aligned conference in Georgetown, and is also apparently attending in Algiers, it is not clear whether the PRG is to be admitted as a permanent member of the conference. This, it seems, is to be decided in Algiers itself.

Mr. Thieu has been at pains to try and stop on any 35 km. which runs east-west attempts by the PRG to promote between Highways 2 and 3. It itself diplomatically and recently said, "Government has issued a number of its Government members to various countries around the world to head off PRG attempts to win friends.

Although his Government is near the village of Ang Souk, not seeking a seat at Algiers for 13 miles (20 km) south of the itself. President Thieu claimed capital.

### Japanese consortium in Iraqi oil deal

TOKYO, Sept. 3.

FOUR Japanese companies have agreed in principle to purchase oil directly from Iraq, Toyo Menka Kaisha, a trading firm said to-day.

However, officials denied earlier reports that this provisional agreement to this effect had already been signed.

Toyo Menka said the Japanese are examining the idea of lending Iraq \$500m. as part of the transaction. Hopefully, officials said, a large part of these funds would come from Japan's Government-sponsored Export-Import bank and the country's overseas economic co-operation fund.

The major point of contention in the negotiations is a request by Iraq for an interest rate of less than 6 per cent on the loan. The Japanese believe that 6 per cent should be the bottom limit, and even that would be difficult in current money market conditions. The loan would mature in 10 or 12 years, the officials said.

Toyo Menka said that the amount of hydrocarbons to be purchased would depend upon the terms of financing. AP-DJ

that his Government holds all the right credentials: belonging to neither to a military bloc or alliance.

Reuter reports from Hong Kong that Prince Norodom Sihanouk, head of the Cambodian exile government in Peking, has called on Cambodian soldiers to abandon President Lon Nol's government "before it is too late."

In a message quoted by the New China News Agency today, Sihanouk said the United States knew that their final defeat in Cambodia "is inevitable and imminent."

"They have made a plan to flee hastily from Phnom Penh as soon as the Cambodian people's National Liberation Armed Forces launch a big offensive against Phnom Penh . . ."

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Eastern: 126/130 Tenison Road, Cambridge CB1 2DR. Tel. 0223-51643.  
Northern Central: 31 Ardwick Green North, Manchester M12 6HA. Tel. 061-273 1706.  
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# The Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

• DESALINATION

## Solves the worst desalting problems

NEW technology developed by High operating temperatures are using mainly sulphuric acid, has individual precipitated particles Ciba-Geigy (UK), in collaboration essential for economic large-scale between the particles and any with the United Kingdom Atomic production of potable water by dosing problems. Increased solid surfaces in contact with the Energy Authority, looks like providing a breakthrough in the control of scale in high temperature desalination plant. Ciba-Geigy are claiming that the product, based on a polymeric carboxylic acid, is effective with brine temperatures up to 250 degrees F, has minimal handling, storage and corrosion problems and will reduce operating and capital costs on new high-temperature plants.

The company has designated the product Belgard EV. It is an extension of the recently introduced Belgard 5000 range of water treatment chemicals. The brief for Ciba-Geigy's research team was to find an effective scale control agent that would operate at high temperatures without the serious problems associated with acid dosing.

• COMPUTING

## Major file created in a month

CLASSIFIED directories are among the most complex of commercial records and cost of maintaining them manually is becoming almost prohibitive.

OCR computer techniques, by which mixed alphanumeric information can be processed speedily and economically, are providing a ready answer to the problem. A project of this kind has just been undertaken on a major trade directory. Jointly involved were Computer Services Centre and Bellard, two London organisations who operate a combined OCR service designed particularly for large file creations. The contract involved the transfer of the whole classified section of the directory, about 250,000 entries, to magnetic tape. This will be the basis of an online retrieval system, and will provide a comprehensive information service for subscribers.

The whole job took only a month to complete. Bellard undertook the preparation of the scanning documents in OCR type. These were then processed by CSC's Scan Data 300 installation.

One of the main problems in a directory of this size is the singularity of names panes closer together than ever. The amount of duplication of names makes it difficult to identify individual entries. The contract involved the transfer of the whole classified section of the directory, about 250,000 entries, to magnetic tape. This will be the basis of an online retrieval system, and will provide a comprehensive information service for subscribers.

### NCR closer to Control Data

NATIONAL CASH Register Company and Control Data Corporation have announced formation of the CDC-NCR Advanced Systems Laboratory to conduct joint architectural design of future computer central processing units.

That's why we build our engines the way we do. And when there's only one engine in your boat, you need to be sure that it's reliable. Rolls-Royce diesels are designed and built to be just that. They're simply designed. Because that way there's less to go wrong. And they're tough because we know your life could well depend on the performance of one of them. They're also very easy to service. Just in case you want to do the work yourself. But if you don't, you can of course take advantage of our after sales service facilities. Power outputs run from 100 to 750 bhp. An ample range of reliable, slogging power. For pilot boats, work boats, private yachts, fishing boats, tugs and dredgers. You know how tough you have to be to go to sea. And you know how tough the engine needs to be. Now you know exactly what that engine has to be as well.

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Diesel Division

## You've got to be tough to go to sea



After five years of research, the product is undergoing final field trials on multistage flash plants in the Gulf. Results to date show that the brief has been more than fulfilled and a product has emerged that will solve one of the most pressing problems facing desalination operation and design: how to control scale in high temperature plant, without having to use acid dosing.

Before Belgard EV there were only two methods of preventing alkaline scale formation in desalination plant: dosing with polyphosphate additives, and acid dosing. Polyphosphate additives are not effective above 190 degrees F and are therefore not suitable for high temperature applications and acid dosing.

Belgard EV operates by two distinct chemical actions to prevent hard scale formation on heat transfer surfaces: the threshold effect and crystal distortion.

Threshold agents act in less than stoichiometric concentrations, preventing or retarding the precipitation of potential scale-forming salts.

Crystal distortion reduces the number of nuclei available for scale formation.

Larger non-crystalline particles are, therefore, produced which incorporate the active ingredient into the structure as it grows.

Normal regular crystals are thus completely distorted and there is no adhesion between the

particles and the surface.

The company operates from Simonsway, Manchester M22 5LR.

• CONFERENCES

### Rethinking research orientation

EUROPEAN Government officials and industrialists are meeting in Milan in October to discuss the long-term future for research and development activities in western countries.

The six-day conference — "Changing Environment of the R and D Manager" — has been called by the International Institute for the Management of Technology (IIMT) in association with the European Industrial Research Management Association (EIRMA).

It seeks to identify the new R and D opportunities which are opening up and which may reverse the present trend in which R and D directors are finding it harder to obtain company funds for their programmes.

In the United States, Britain and France, there has been a significant compatibility accommodation for current distinct levelling-off in government and private users of both companies' systems.

Establishment of the sector R and D spending. But laboratory does not affect the similar changes are occurring previously stated position that elsewhere in Europe and there is both companies will retain full now widespread recognition that researchers will be required increasingly to solve a different set of problems in the next decade in most advanced countries.

The conference will take place from October 22-26 at the Milan headquarters of the IIMT under the chairmanship of GKN's Director of Strategic and Technical Planning, Dr. Brian Williamson.

**Welding low temperature plant**

THE WELDING Institute is arranging an International Conference in London from November 20 to 22 on "Welding low-temperature containment plant," which it says will provide material suppliers, designers, fabricators and users with an opportunity to study and discuss the welding aspects of low temperature plant design, construction and operation.

The Institute points out that the plant required is inevitably fabricated by welding so that structural safety and integrity, and the economics of construction and operation must depend in large measure on the successful application of the latest advances in welding technology.

Many of the technical developments in low-temperature engineering have involved advances in the fields of welding design, materials of construction and fabrication processes.

Basic studies of materials will include extensive reference to nickel steels and their properties in welded form; the welding of nickel iron, aluminium alloys and stainless steels will also be covered, together with the development of new construction steels. Design requirements and construction and operating experience relative to land storage tanks, pipelines and ships' cargo tanks will form significant sections of the proceedings.

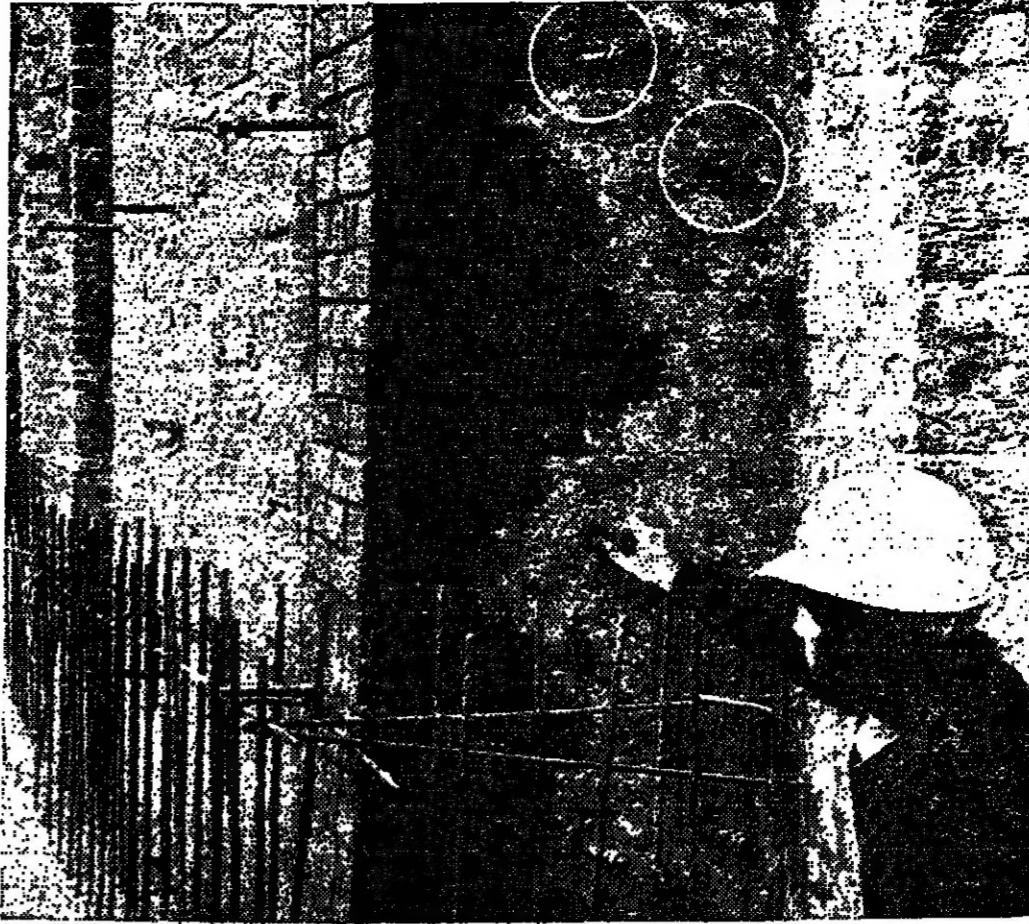
The 30 papers to be presented and discussed at the Conference have been submitted from many countries. Details of the programme may be obtained from Roland Newman, Director of Education, The Welding Institute, Abington Hall, Abington, Cambridge CB1 6AL.

**PACKAGING Laboratory heat sealer**

A HEAT sealer for flexible packaging materials, specially designed for use in laboratories and quality control departments, has been developed by British Celliphane of Bath Road, Bridgwater, Somerset.

High standards of instrumentation give the sealer precise dwell time control with an accuracy of 0.025 seconds at full scale setting. Temperature control is also very accurate to more than plus or minus 0.25 per cent, at the maximum reading.

Accurate pressure control is another claim for the sealer with settings obtained down to 0.5 lbs per square inch. Even greater accuracy at low pressure settings can be achieved with a special control available as an optional extra which has an enlarged 0.5 lbs per square inch scale.



To preserve an original Nash facade at Ulster Terrace, in London's Regent's Park, while

the remainder of the building is demolished and replaced by a modern office and residential complex, a high-strength resin anchorage technique developed by Chemical Building Products of Hemel Hempstead, Herts, and combined with an intricate system of shoring and under-pinnings, is being used. Here one of the 650 specially manufactured "I" by 24" long deformed stainless steel bolts used is being placed. Each anchor—designed to allow for adjustment in the bond length to compensate for the poor condition of the ageing brickwork—has an axial pull-out value of

one ton working load with a safety factor of 2. After insertion the deformed high-tensile bolts are rotated through the resin cartridges to ensure adequate mixing. After a short curing period this provides tie bars of tremendous strength. The tie bars, when embedded in the new concrete backing wall, form an integral slightly flexible link of great strength between the old facade and new structural wall. When completed by Bovis early in 1974, the reconstructed building will provide modern office facilities and luxury residential flats, while retaining the classic lines of Nash's original concept in the north and east elevations.

• SAFETY

### Solid-state fire hazard detector

A RELATIVELY cheap, small unit that can be flush-mounted in a wall and will detect small traces of exhaust gas, fire smoke, hydrocarbons, town gas, North Sea gas and other substances is now available from Electromet Counters of Ruckinge, Ashford, Kent, TN28 2EP. It is manufactured by P. H. Electronics of Sandwich, Kent.

The device uses a semiconductor of Japanese origin which it is believed functions on the basis that the surface of the semiconductor is doped by the presence of certain contaminants and experiences a change of electrical resistance. The change is sensed by the appropriate electronics to operate an integral alarm, or an optional trace is used to actuate whatever external warning devices are desired. There are no moving parts whatsoever.

Further details of the semiconductor were not forthcoming from Electromet Counters, but the doping process is reversible in that the detector can be "cleaned up" by a built-in heater after it has been activated. It is claimed that the semiconductor will remain stable after 50,000 such exposure-actuations and after exposure to steam (likely to be encountered during fire-fighting action). The device is being marketed under the name "Bloodhound" and would normally be set to from Process Peripherals as a

SERIES 110 rotating disc store

in

boots, caravans and other vehicles.

• PERIPHERALS

### Rugged disc designed in Britain

## THE TITAGHUR JUTE FACTORY COMPANY LIMITED

### A DIFFICULT YEAR

The 30th Annual Ordinary General Meeting will be held Dundee on 27th September, 1973. The following are extracts: the statement by the Chairman, Sir John Brown, circulated in the Report and Accounts.

#### THE PAST YEAR

The high level to which jute goods prices were inflated due to the virtual suspension of production and export from Bangladesh, together with the various high fiscal duties levied, undoubtedly responsible for bringing about a further remarkable expansion in the production and use of various types of synthetic material for packaging and other industrial purposes. In particular the large petro-chemical complexes in America were quick to take full advantage of the price situation, aided by the fact that products were available indigenously, and in consequence demand for jute goods in this important market declined substantially.

Apart from the increasing displacement of jute by synthetics competition against Indian jute goods intensified during the second half of 1972 with the revival of production and export from Bangladesh and with stocks of carpet backing cloth beginning to pile up in North America, fresh orders were few and far between. As the Bangladeshi mills were able to undercut India's price by a substantial margin, the bulk of such new business for carpet backing as there was went to Bangladesh.

Apart from the set-back, due to flooding of its premises, suffered by the Dundee Branch Cloth & Waterproofing Company Ltd., the results of the three subsidiaries acquired early in 1972 were encouraging. Turnover in the later months reflected the general expansion in the United Kingdom economy and the substantial demand for carpet yarn ensured a high level of activity in the factory. Smiths Limited. The overall management structure of the companies was reorganized with, I believe, beneficial results.

#### ACCOUNTS

The net profit for the year before taxation but after making provision for retirement gratuities of £348,178 amounted to £75,208. After making provision for taxation both in the United Kingdom and after making the relevant adjustments to Development Rebate Reserve, there remains group net profit for the year of £2,900. Preference dividends for the year totalling £23,715 were paid and fail to be set against figure, leaving £20,725 to be charged against Revenue Reserve. Despite the high hopes held at the end of the first half of the year, the heavy losses incurred in the first half of 1973, the poor prospects for the remainder of this year preclude Directors from recommending the payment of any dividend on the Ordinary stock. In any case due to a difference of opinion with the exchange control authorities in India in regard to the definition of our remittable profits and since our limited sterilized resources are required for trading purposes, I must warn you that it will not be possible to continue dividend payments on either the Preference or the Ordinary stock until this difference has been settled and remittances from India resumed.

#### TRADING PROSPECTS

Prospects for the current year can only be described as sombre. During the first six months the whole industry has suffered from adverse trading conditions due to the rise in raw material costs, during which period the prices of finished goods were also dominated by the continuing competition from synthetics and Bangladeshi jute goods. Pressure on working costs has increased due to the production lost on account of the frequent and often prolonged power cuts, the obligation to pay lay compensation to the workers and the very disturbing lack of discipline and agitation.

As far as raw material is concerned, the prospects are not very promising as the new crop to date has made very good progress under favourable weather conditions. It is expected that 1973-74 crop will be of much better quality and according recent reports may turn out in the region of 74 million bales which is about 1½ million bales more than in 1972-73.

The position in the United Kingdom is much more hopeful and I would expect the level of activity and profits of our factories here to be at least maintained.

#### THE FUTURE

The effect of the (United Kingdom) Finance Act 1972 is to deprive stockholders resident in India of tax credits in respect of dividends to which they were previously entitled, the combined effect of the Monopolies and Restrictive Trade Practices Act 1969 and the pending Foreign Exchange Regulation Companies (Amendment) Bill in India will be to induce substantial structural changes in Groups such as ours, if and to extent to which their provisions are applicable.

## ROOM TO GROW

### Cwmbran

Garden City Centre

For information about industrial units in Cwmbran write to: Mr. McComb, General Manager, Cwmbran Development Corporation, Garden City Centre, Cwmbran, Mon., NP14 7TT. Tel: Cwmbran 67777. M4 FROM LONDON—MSIN FROM THE MIDLANDS

• INSTRUMENTS

### Analyses made simpler

MEASUREMENT of ion concentration is easier with the Philips PW 9413 digital ion activity meter offered by Pye Unicam Cambridge.

The new instrument is similar to its analogue predecessor, PW 9413, in ability to measure univalent or divalent cation or anion activity. The differences lie essentially in simplification of controls, button simplicity and with digital precision.

With the instrument, measurement of pH, pBr, pCa, etc. and any other p-value for a given electrode is available, accomplished merely by the proper electrode and probe button.

Read to an accuracy of two decimal places. This is sufficient for most advanced research measurements. The measurement may be easily read in distance of five meters or less.

One of the important features is ability to accept all types of electrodes independently of individual isothermal junction points.

The meter also provides capability for direct measurement, standard addition, potentiometric titration, amperometric titration and voltammetric titration. Recording and printout facilities can be directly.

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The K Factor

## A promise even the hardest industrialist can't ignore.

For some years, Colt have been telling industry that warm air heating systems cost half as much as boiler systems. People have believed.

Our files are stuffed with case histories that would turn the Bank of Scotland green.

What they tell us, we offer to the rest of industry as a promise.

With no provisos.

No small print.

A Colt warm air system will cost substantially less than a new boiler system.

It will be more efficient.

It will cost less to run.

It will take up less space.

It will need less men to maintain it.

It will carry a 10 year guarantee, and it can be

bedded in 10 minutes from oil to gas, or gas to oil.

Or take advantage of 'interruptable' gas tariffs. Or

avoid disruption by a supplier's strike.

To the traditional industrialist these facts may seem too strong to believe.

To us, they are simply the benefits we build into every heating job we carry out.

Benefits that allow valuable capital to be saved and used for modernisation and plant.

And because Colt is the only company that manufactures, surveys, and will install and service its own warm air heating systems, we can underwrite these savings.

Because if anything goes wrong, you talk to us.

And – any promises we make, we keep.

Ring us for a survey, it'll cost you nothing.

That's a promise, too.

Colt International Ltd: Heating, Ventilation &

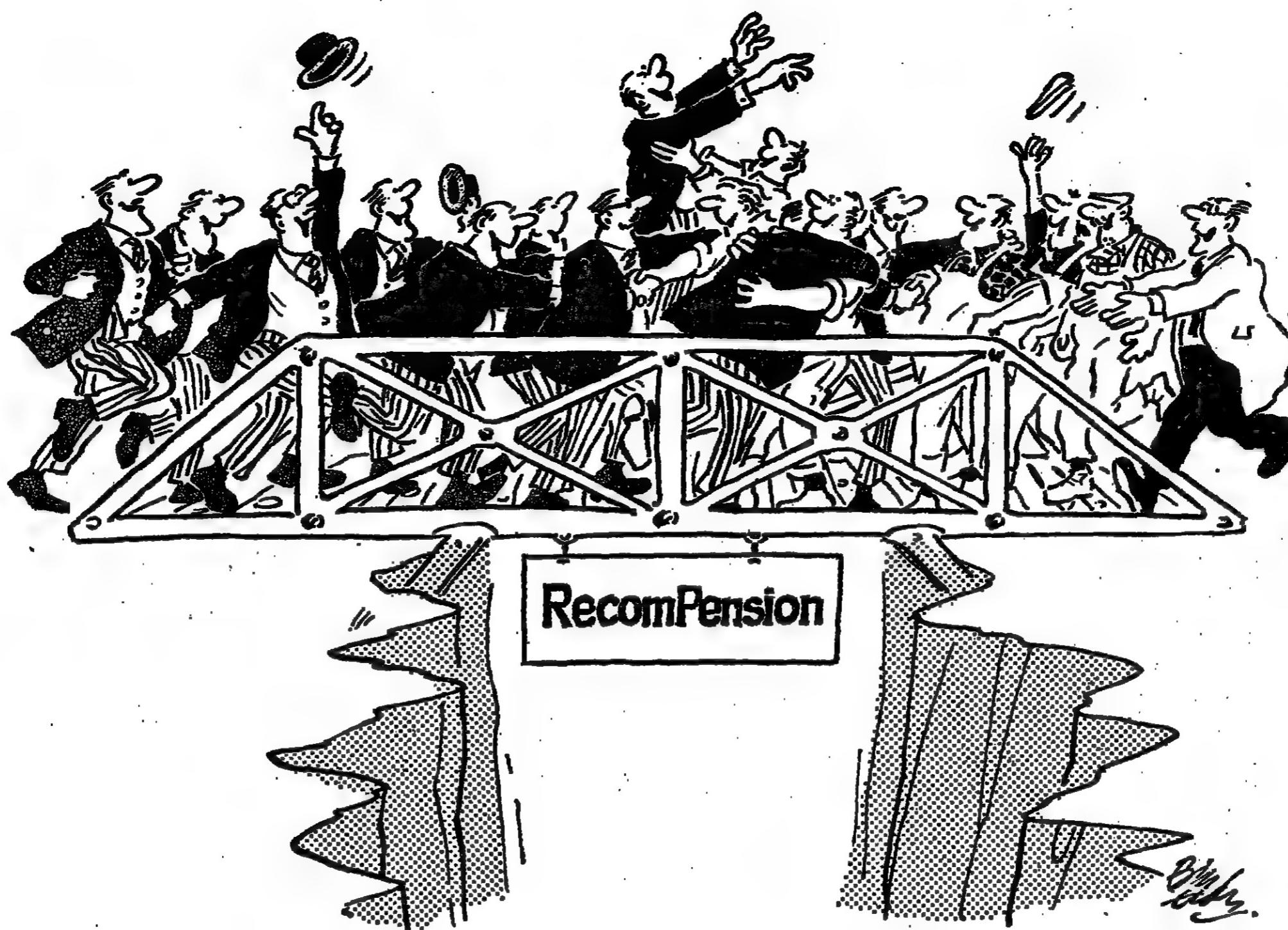
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## EMPLOYERS!

**A company pension for everybody  
bridges one gap between you and the shop floor**



**"Manual workers are now much more interested in pensions and job security".**

JACK JONES, T.G.W.U.

**The new Government legislation on pensions gives you the chance to take an important initiative in your dealings with the men on the shop floor.**

**After April 1975, every one of your employees must get the right to a second pension, on top of the basic Old Age Pension.**

You have the choice between a Recognised Company Pension Scheme (RecomPension for short), or the State Reserve Scheme—the Government's safety net.

The new pension reforms come none too soon. Already men on the shop floor are asking why they should receive inferior pensions to their counterparts in office jobs.

Pensions are now a sensitive industrial issue. Newspapers and T.V. are discussing the merits of Company Pensions and State Reserve. 'Best' and 'second best' labels are already being awarded. And the man on the shop floor is fed up with being regarded as 'second best'. At a time of growing demands to bring men and management closer together, Recognised Company Pension schemes, covering everybody, will be seen as a major step forward.

### **The difference between a RecomPension and State Reserve**

A RecomPension Scheme is run by you as an employer, to standards laid down by the Government. It will probably cost you more than the State Reserve, but the table shows only too clearly what the advantages are. Higher pensions, more security for dependants, freedom to take a lump sum, more for widows

These are the benefits of a RecomPension. Benefits which will soon be regarded by your workers as part of the rate for the job. Benefits which will be seen as vital if a happier industrial climate is to exist in the second half of the 70's.

### **Do you have a moral obligation?**

Should you care about the standard of living of your workers when they retire? Is it just sentimentality to give a man who gave you 30 working years, a few comfortable years of leisure?

You know that the big companies are guided more by sound business sense rather than sentimentality. Yet they do give good pensions. They feel their reputation depends on it. A RecomPension would enhance your reputation, too. And for broadly the same amount, pro rata, that it costs the big companies.

CONTINUED ON NEXT PAGE

## FILM AND VIDEO

BY JOHN CHITTOCK

## Shake-out in sponsored films

IN THE latest issue of Kemp's Film and Television Year Book, there are just over 200 U.K. companies listed who claim to specialise or do specialise in sponsored short film production. Of these 200, however, probably no more than 50 or 60 are in the sponsored film business in a serious way; the rest are mostly involved in other kinds of film work (such as TV commercials) but will gladly have a go if an industrial sponsor is willing to commission them; and a few may be one-man bands, filling in with anything from mini-cab driving to teaching at a film school until their next film comes along.

For a sponsor, the choice sounds hazardous. In practice, most of these companies are experienced professionals who are merely caught up in a highly-competitive business where too many producers are chasing the 1,100 or more films made each year in Britain. A mere 20 to 25 film companies dominate the industrial film business, and almost unfailingly the best films each year will emanate from these—even though the output of the remainder will rarely be very bad and may yield an occasional surprise.

## Tightened

For the serious core, the last few years have not been easy. Although the actual numbers of films being sponsored annually has increased slightly, budgets have tightened considerably. As one very active producer recently said "Once we could not look at a £5,000 film—now we are making them all the time."

In the salient days, budgets of £20,000 to £40,000 were frequent enough. Now, even after inflation, a £20,000 budget is rare.

In part this is a consequence not only of tighter money but also of a trend towards more functional kinds of film. The prestige film is almost a dying species, and the modern hybrid has to achieve very precise objectives. The improving quality of 16mm camera stocks has also encouraged a drift away from the more expensive use of 35mm, and there has also been a changeover to the use of freelance technicians instead of large permanent crews.

This latter trend is unpopular with the film trades union, the ACTT, but most producers I have spoken to are adamant



"An Englishman's horse": a Charles Barker Films production for the Midland Bank.

that they could not continue on present budgets if they had to maintain permanent technicians and directors. ("Most would spend a third of the year idle between films," claimed one large employer).

In consequence, the typical sponsored film company of the 1970s is small. A permanent staff of only five or six is not unusual. The father figure of this industry, the Film Producers Guild, now employs about 45 people, whereas in 1950s the number exceeded 300.

The Film Producers' Guild has typified the problems. Once a glamour company with an output of prestigious, 35mm, high-budget films, it is now regularly tackling films in the £8,000 to £20,000 range. The Guild is a commercial company, despite the name, with eleven separate

production companies within the group. It is now wholly owned by the Charterhouse Group, and anyone who is anybody in sponsored films seems to have less glamorous functions (although Cygnet also

made Cup Glory, the FA Cup Centenary film and the Rothman's motor race film, and is beginning to attract more pre-

stigious work of this kind).

## No easier

Yet size may not be measured by numbers of staff or premises. James Archibald and Associates operate rather like barristers in film.

## Competitors

Only two other companies

compete in size with the Guild, World Wide Pictures and Cygnet Films. Again, World Wide is part of industrial film history in Britain, and, although employing 60 people,

has a significant second string

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and Laurie Lee).

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# New force in uranium

BY DAVID FISHLOCK, SCIENCE EDITOR

# Leap in August HP car sales

BY DAVID WALKER

THE NUMBER of cars sold on hire purchase leapt to 16,943 last month, nearly double July's total of 27,179, according to Hire Purchase Information.

The sharp rise was predictable. Indications within the motor industry are that August could be a record month for car sales in spite of the general slowing down in the market expected to be shown by the overall year's results.

## Significant

Like every other month so far this year, the number of hire purchase deals was significantly above the level for the corresponding period of 1972.

Indeed, the difference, with an August, 1972, figure of 41,597, is somewhat greater on a percentage basis than experienced earlier in 1972.

With so much finance for new car purchase now being provided, however, from sources other than hire-purchase concerns, notably the banks, the extent to which the HPI figures provide a reliable guide to the state of demand for vehicles is questionable.

## Airlines against further Atlantic fares cuts

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

FURTHER CUTS in North Atlantic air fares next year are likely to be resisted strongly by many airlines when they meet in New York this week to discuss a new fares agreement under the auspices of the international Air Transport Association.

Despite the situation created by the recent Washington Appeals Court ruling which ordered the Civil Aeronautics Board to drop its earlier approval of the current North Atlantic fares pact, the airlines are saying that further cuts in fares are just not possible at this time.

They argue that, although the Washington Court's ruling resulted from a case brought by a U.S. consumer pressure group which sought lower fares, it took no account of the fact that many airlines are in no position economically to cut fares, nor that the Governments of many other countries are also involved and that their views have to be respected by the U.S.

In other words, Governments make such changes difficult.

## World Value of the Pound

The table below gives the latest available rates of exchange for the pound against various currencies on September 3, 1973. In some cases rates are nominal. Market rates are the average of buying and selling rates except where they are shown to be selling rates only. In some cases market rates have been calculated from the market rates of foreign currencies to which they are tied.

Exchange in the U.K. and most of the countries listed are officially controlled and the rates shown should not be taken as being

applicable to any particular transaction without reference to an authorised dealer.

Abbreviations: (S) member of the sterling area; (T) member of the Special Trade Zone (N) Schedule I Territory; (O) official rate; (F) free rate; (T) tourist rate; (c) non-commercial rate; (n.s.) not available; (A) approximate rate; (n.d.) no direct quotation available; (s) selling rate; (b) buying rate; (nom.) nominal; (ex/c) exchange certificate rate; (P) based on U.S. dollar parities and going sterling-dollar rate.

Rates for some currencies are uncertain. Rates marked \* are not necessarily up to date.

Source: Bank of England, London.

By Noel Howell, Labour Reporter



JOURNAL

Blackpool, September 3

## Delegates reject call by Left wing for NIRC boycott



Sir Sidney Greene

Relations Act issues, but should accept instructions from the TUC General Council.

The thing that worries us is how to administer the policy contained in the engineering union motion. For years the TUC has demanded service from the General Council, but we have never conceded them the power.

We have delegated problems to them but no authority. This amendment is not asking you to give up your birthright but to act in a sensible way.

Sir Tom Jackson, general secretary of the Union of Post Office Workers said bluntly: "If you pass this resolution, you put us in a situation where we can no longer defend the interests of our members."

If this is the decision of this Congress, we shall not obey."

Scab organisations would welcome the passing of the resolution. It would prevent his union from defending its members in court.

Mr. Jackson said: "We are not prepared to hand over members to a scab organisation without defending them. We cannot be pushed in this direction."

Opposition to the motion also came from Sir Sidney Greene, General Secretary of the National Union of Railmen, and from Mr. Feather.

Sir Sidney said they could not make progress against the Act by passive resistance. Non-attendance at the court did not stop case law being built up against the unions.

During the railway dispute soon after the Act became law, there had been many occasions when the Government could have abused it had they wanted to, but the action of the railway men had halted such steps.

Mr. Jackson pointed out that they were "co-operating with the attacker and the mugger" if they tried to hit back.

I am a rather pacific sort of man, but if my elbow is jostled three times in a pub I get a bit more polite. I say "excuse me, do you do this accidentally all the time?"

## Obligation

Unions have got to protect their members when they are pushed around. They not only have a right to do this but an obligation. General secretaries, presidents and executive committees are not elected just to be sitting ducks when their organisation and membership is attacked.

The motion did not call for unity of action because they were, in fact, united. What it really called for was uniformity of action between organisations which were not uniformly well organised, did not have the same strength and could not uniformly defend themselves in exactly the same way.

A LEFT-WING move to stiffen TUC opposition to the Industrial Relations Act failed.

By 5,573,000 votes to 4,024,000 votes, Congress delegates rejected a resolution which could have prevented unions defending themselves before the National Industrial Relations Court.

The unsuccessful resolution had been backed by the two major Left-wing unions, the Amalgamated Union of Engineering Workers and the Transport and General Workers' Union.

The motion was however defeated on a card vote, and an amendment proposed by the Union of Construction, Allied Trades and Technicians which would have given TUC General Council power to control unions actions over the Act was also out-voted—by 5,875,000 votes to 3,875,000.

Moving the resolution, Mr. Hugh Scanlon, AEUW President said that "to attend this Court gives credence to such a deplorable Act."

The resolution led to a warning from Mr. Tom Jackson, Union of Post Office Workers general secretary, that his union would continue to defend itself before the court even if the militant motion had succeeded.

The Act was designed to make trade union leaders act as policemen over the rank and file.

The Lords, in the best-known case, had interpreted it in the way the unions had always known it to be—a legal device to strip the leadership from the rank-and-file in an case where the interest of the latter conflicted with the union both boycotted court proceedings and refused to obey the court's orders.

The TGWU has been defending itself before the court ever since the TUC relaxed its total boycott to allow unions to defend themselves.

In seconding the motion, Mr. Harry Urwin, TGWU assistant general secretary, said: "We want the TUC to strengthen and intensify its policy against the Industrial Relations Act."

Recommending delegates to reject the AEUW-TGWU call, Mr. Vic Feather, retiring TUC general secretary, said unions had both a right and an obligation to defend their interests.

The defeated resolution urged

Congress to call on the General Council to lead a united front of non-co-operation to "all aspects of the Industrial Relations Act". It also opposed any forms of wage restraint, though the major debate on the Government's continuing talks with the TUC on countering inflation is to take place on Wednesday.

Captain E. S. Linnean, chairman of the British Airline Pilots' Association, said expulsion could do nothing but harm to the workers which the TUC sought to protect. He intended to recommend to the Balpa National Council that, "to demonstrate their solidarity with their colleagues in the trade union movement, they should continue to pay their TUC affiliation fee even if expelled."

Lord Willis (scriptwriter Ted Willis) put the case for the Writers Guild of Great Britain, which has about 1,000 members.

He described the Industrial Relations Act as a "rotten Act," but the Guild was caught by it.

To de-register according to the TUC demand, would face the Guild with tremendous problems

which did not arise in the case of the majority of trade unions.

"We have not switched to pull no shop floor strength, but we have a high, fluctuating unemployment rate," he said.

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Moving the motion, Mr. Scanlon said the Act was regarded with embarrassment by the vast majority of employers, because of the determined action of

rank-and-file trade unionists who had put principle before expediency.

Trade unions had a basic right

to defend their members, but the

decisions on industrial

relations set up by the Industrial

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TUESDAY SEPTEMBER 4 1974

## Investment yet to come

THE STATISTICS published yesterday by the DTI about industrial investment in fixed capital and stocks relate to the second quarter of the year, when consumer demand had risen, which fluctuates already fallen back from the high pre-VAT level of the first quarter to another turn out to have been slightly lower. The main point to be borne in mind here, however, is that the original estimates of capital spending for the first quarter have since been revised substantially upwards, mainly as a result of late returns from industry. The first is the effect of VAT, introduced to meet pressure on the exchange rate. They have also been prepared on a new basis. Their interpretation, however, has been substantially revised upwards, mainly as a result of the second half of 1973 than in the first half of 1972 — a result at least as good as officially expected.

So far as stockbuilding is concerned, two things stuck out. The first is the effect of VAT, which appears as an actual drop in the stocks of finished goods held by manufacturers and wholesalers during the second quarter and a sharp rise in the stocks held by retailers. This latter rise may be partly due to deliberate building up of stocks after the boom in sales during the first quarter but also suggests that the extent of the drop in sales during the second quarter looks retailers by surprise. Without a recovery in consumer expenditure, the rise of 12% per cent, which took place in retail stocks during the first half of the year may well lead to a reaction which would be passed back along the line.

### Stock/output ratio

The second outstanding fact about stockholding during the second quarter is that manufacturing industry, though continuing to build up stocks of raw materials and fuel after two years of continuous reduction, did so by little more than in the first quarter. It therefore seems likely that the downturn in the stock/output ratio which has been apparent since the beginning of 1971 may have been arrested but not reversed.

Special factors may have had a part to play — notably the high level of various raw material prices and the possibility that some, at least, might soon pass their peak. But the cost of credit, which has risen substantially since the second quarter, will encourage economy and reduce the extent to which supply bottlenecks at brought about, might well inflate the bill for imports.

The estimates of fixed capital expenditure during the second payments at the same time.

## German ideas on EEC farm reform

THE proposals for the reform of the European Community's common agricultural policy, put forward last week in Bonn, do not at this stage represent Government policy, since they have been formulated by an independent advisory council. But the fact that the Agriculture Minister, Josef Ertl, presented the report to the Press, and recommended its conclusions, give some idea of the Government's thinking. At his Press conference, the Minister did his best to play down the significance of the proposals: they represented a "middle course" which would leave the basic principles of the agricultural policy untouched, he said.

**Fundamental**  
In one sense, the proposals represent a middle course. The advisory council considered, and rejected, a much more fundamental approach, consisting of the total or partial removal of all import protection and the establishment of deficiency payments or income support for farmers. It rejected this line of approach, on the ground that it would solve no problems and would cost a great deal of taxpayers' money. It must also have recognised that it would have been regarded in Paris as the destruction rather than the reform of the farm policy.

The alternative approach, which it recommended, was that the border taxes on farm products traded between member States, which have had to be imposed as a result of the monetary upheavals, should be kept in place. But it goes further than merely recommending the maintenance of the status quo, which would hardly be a reform at all: "the Council recommends national price differentiation which is not exclusively the price paid by the Germans for the French. In the Gernans are anxious not to upset the French unnecessarily; distortion of competitive conditions in the EEC cannot be and price inflation, the Government is likely to pay more.

Josef Ertl did his best in attention to the consumer and argue that this did not mean the taxpayer.

**T**HE CENTRAL Electricity Generating Board's plan for a substantial increase in the rate of new power station construction has come as a blow to the country's main transformer companies. With the exception of Ferranti, the country's main transformer companies have already cut back their capacity in the past five years, and Ferranti has joined them in slashing the plant manufacturers who have been carrying extensive and labour force.

One is now left with senior managers who naturally want to be something better than hatchet men. But apart from personal prestige, two other factors have combined to create the present stalemate. Many of the factories which ought to be closed if the industry is to be trimmed are in development areas, and while the Government would undoubtedly like to see more rationalisation, it is naturally concerned about the implications for its regional policy.

Secondly, the economics of producing all but the most advanced transformers appear to dictate that it is cheaper for the individual company to limp along just above the breakeven point than to close its plant, with all the problems of redundancy payments and a white elephant factory — the high-roofed assembly halls have few alternative uses and are difficult to sell, even at uneconomic prices.

If the manufacturers are not prepared to close their own capacity, the most likely solution — apart from the threat of bankruptcy, which could arise in a few isolated cases, though not among the country's big four manufacturers, GEC, Rayrole Parsons, Ferranti and Hawker Siddeley — would be the intervention of an external force. Purely British takeovers seem unlikely, since the asking prices are unacceptably high. The IRC was stumped by the same problem, and the Department of Trade and Industry shows little willingness to pay the sort of sum involved.

### The biggest capacity

The British transformer industry still has by far the largest capacity in Europe, though it has now been overtaken in terms of output by West Germany. In all the other major manufacturing countries — though Italy has been a late starter — the past five years have seen a drastic reduction in the number of factories. In terms of the number of separate manufacturers, too, the U.K. is much less concentrated than its European counterparts.

What is required is rationalisation: no one in the industry is in any doubt of that. Nor were they in the late 1960s, when the Industrial Reorganisation Corporation tried in vain to engineer a radical reshuffle. Although employment has been cut from 18,000 in 1966 to 7,500 at the end of last year, the rationalisation measures have fallen short of what is required to create an industry capable of competing abroad with ASEA, the Swedish concern which is generally accepted as the most efficient and most advanced transformer maker in Europe (though Ferranti can claim to rival it on the technical front).

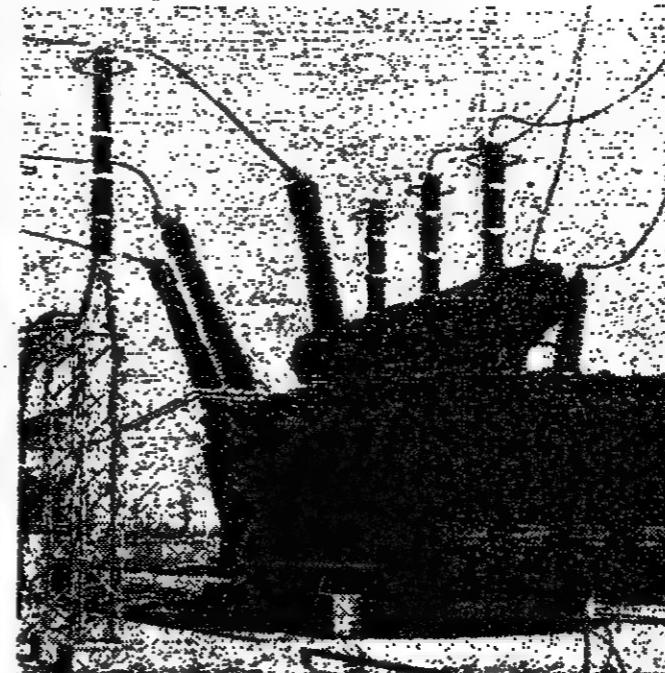
The trouble is that, as in so many other cases in Britain, rationalisation means transforming the industry, rationalisation means machines) at the lower end, and "power" transformers at the upper. The dividing line is over accounted for by distribution and system equipment, which the power sector begins.

The 12 Area Electricity Boards, who are responsible for purchasing distribution and system transformers for the English and Welsh transmission network, have gradually adopted a tough commercial approach, and now tend to buy on the basis of price alone. The result was a price war lasting several years, from 1968 to 1970, and price levels are still low.

Up to two years ago hardly a single manufacturer was selling above total cost, and they were almost all in the red.

The net effect was a decline in the number of distribution machine makers from about 30 significant ones in 1966 to ten in 1973. Of the leading manufacturers, only Brush (part of the Hawker Siddeley group) can claim to be achieving a good majority of the home market.

This market is best divided into two sectors, distribution industry, rationalisation means



UK transformer sales, all types.

	Total £m.	Home £m.	Export £m.
1966	61	56	5
1968	52	43	9
1969	45	35	10
1970	43	33	10
1971	46	34	12
1972	45	30	14.5
1973*	45	30	14.5
*Forecast			

European power transformer sales\*

	Total MVs	Export ratio %
United Kingdom	31,223	32
West Germany	31,203	22
Italy	19,267	20
France	16,713	36
Sweden	15,885	77
Spain	8,328	3
Switzerland	6,032	75
Belgium	5,904	29

\*Transformers larger than 10MVa

machines) at the lower end, and "power" transformers at the upper. The dividing line is over accounted for by distribution and system equipment, which the power sector begins.

The 12 Area Electricity Boards, who are responsible for purchasing distribution and system transformers for the English and Welsh transmission network, have gradually adopted a tough commercial approach, and now tend to buy on the basis of price alone. The result was a price war lasting several years, from 1968 to 1970, and price levels are still low. Up to two years ago hardly a single manufacturer was selling above total cost, and they were almost all in the red.

Like most German, French and Italian utilities the CEGE, the two Scottish boards and the Area Boards still apply their traditional policy of procurement from national suppliers. They constitute the vast majority of the home market. This market is best divided into two sectors, distribution industry, rationalisation means

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# Progressive teaching, backward children

HE DAMAGE being done to is no evidence for these assessor's Bureau. Published last month by the Government revelations, it has so far taken evidence of thousands of parents whose children spend their days now be apparent to all save aimlessly painting eggboxes in those hardened ideologues who are overwhelmed by the beauty of their theories that they are unable to perceive the many failures that have resulted from putting them into practice. I should add at once that this does not mean that "child-centred" methods of education are wrong, or that the only reliable method is to take children in neat rows in oysters' classrooms, regaling them with "chalk and talk" and training them at regular intervals.

Indeed, if theory alone were mattered, the bias would most certainly be in favour of methods based on arousing the child's interest, including some "discovery" lessons, teaching reading only when the child seemed "ready" for it, and liberal use of the "new mathematics" where this appeared likely to pay off.

## Insufficient

The trouble is that most teaching of this kind requires very special teachers, who must be well-trained, highly intelligent, and wholly conscious of what they are doing. What we in fact have, in too many primary schools, is a number of women of whom many went to teacher training college because they were not academically good enough to do anything else and not quite opportunistic enough to become temporary secretaries. The superficial understanding of the new methods that they acquired in their training is not sufficient to make "progressive" education pay off.

It may be objected that there

is no evidence for these assessor's Bureau. Published last month by the Government revelations, it has so far taken evidence of thousands of parents whose children spend their days now be apparent to all save aimlessly painting eggboxes in "open" classrooms, there are, as a starter, the many published statistics on reading ability.

One of the most telling of these, published last year by the National Foundation for Educational Research, is "The Trend of Reading Standards," by K. B. Start and B. K. Wells. Their survey showed that while reading standards improved steadily for the best part of the first twenty years after the war, they subsequently declined. The decline was particularly marked in the case of juniors; with seniors the figures showed a plateau. Yet, the authors of the study comment in a footnote, "this could be a time-lag effect."

The 1970 juniors will be the seniors of 1974 and it will be interesting to compare the scores of the 1971 and 1974 seniors." The correlation of this trend with the spread of ideas about "reading readiness" (letting the child look out of the window until he feels like learning to read) is too close for any conclusion to be drawn other than that the "progressive" approach to teaching reading had been at least partly responsible for the large numbers of illiterate and semi-literate children who are sent to secondary schools.

Since this approach is usually associated with egalitarian ideals about the social benefits of making school into fun palaces for dull children, the figures for social class and reading ability should also be submitted in evidence.

These are available in comprehensive form from "Eleven years of childhood," by Dr. Donald Davie, Director of Research at the National Child-

Development Study, published last year. Published last month by the Start and Wells who have turned against learning the times tables by rote, and dren of the basic numeracy they turn restored.

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# COMPANY NEWS + COMMENT

## BTR's first half profit expansion

FIRST HALF pre-tax profit of BTR, general rubber manufacturers, has increased from £1,763,000 to £2,420,000 and the directors forecast a 1973 year's profit in excess of the £1,351,000 for 1972.

Business in the half year was buoyant in most products and territories, excepting the U.K. automotive industry, the directors report.

The high level of demand elsewhere, particularly from overseas, should ensure a continuing improvement in profits for the full year, they add.

An interim dividend of 1.6p net per 25p share is declared, equal to 2.25p gross, against the equivalent of 2p adjusting for a scrip issue. The 1972 total was equal to 4.2p. Earnings for the six months are shown at 3.7p (3p) per share.

Half year	1972	1973	Year
Turnover	£1,763,000	£2,420,000	£4,083,000
Profit before tax	£2,020	£1,764	£3,337
Taxation	1,078	1,149	1,876
Attributable	1,118	114	2,249
Cost of the interim dividend	1514,000 net		

See Lex

## Central Wagon pays interim

HYDRAULICS MANUFACTURER and steel stockholders Central Wagon Company returns to the dividend list with an interim of 2.55 pence, gross—equivalent to 2 per cent net—on a pre-tax profit of £10,000 for the first half of 1973. The company last paid a dividend—an interim of 2 pence—in 1971.

Trade has continued to be buoyant, and the directors are confident that group trading will, in the second six months, still certainly exceed the £465,000 before interest and extra-ordinary credits of the first half.

At this stage last year there was a pre-tax loss of £50,000. For the full year, 1972, the loss totalled £228,000.

Half year	1972	1973
Turnover	£1,000	£1,000
Trading profit	483	118,494
Other profit	10	10
Tax	43	107
Interest and extra-ordinary credits	101	107
Loss	101	107

Since the end of the half-year, Central Wagon's property and expansion programme at Wigan has been sold for £900,000. The surplus over book value from this sale, together with surpluses from the sale,

### INDEX TO COMPANY HIGHLIGHTS

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Alliance Property	22	8	Investment Co.	20	4
Associated Food	22	6	Kursaal /	20	4
Blackwood Morton	20	4	Lawton Devpts.	20	6
Braithwaite	20	5	LRC International	22	5
BTR	20	1	Lyons & Lyons	20	7
Central Wagon	20	1	Makin (I. & J.)	20	3
Cox Industries	20	8	Metal Products	22	5
Desoutter Bros.	20	5	Northern Devpts.	20	7
Dixon (David)	21	8	SEET	33	4
Firth (G. M.)	20	2	Syntex	20	6
Fitch Lovell	20	7	Titagarh jute	22	6
Hawkins Devpts.	22	7	Wintrust	20	5

disposal of the radiator and trailer businesses, will total about £400,000, the Board estimates.

### Comment

Central Wagon can press on to 50.000 pre-tax for the year. Its net p/e fall to a prospective 12, perhaps 21 points under the 1973 expectation for Miles Druse. Demand is at present no problem for the steel sector, and CW is intent on broadening a stockholding base that accounts for two-thirds of profits. Hydraulics and the moving function of the balance sheet position which was weak in December—has been noticeably strengthened, with overdrafts, for example, down by £750,000. At 35p, the shares may be well on the road to re-assuring confidence in management.

## Over £1.2m. from Makin Paper

TAXABLE PROFIT sharply increased from £16,325 to £44,078 as reported by J. and J. Makin Paper Mills for the year to March 31, 1973, after £179,591, almost £62,333 in half-year. Profit includes £78,032, against £31,465, share of an associate.

And trading conditions continue to be buoyant in the current year to date, the directors report.

Stated earnings are 18.8p compared with 5.7p per 25p share. A final dividend equal to 5.56 per cent, gross—0.93625p net—lifts the total from 7 per cent to a maximum permitted 7.35 per cent.

Turnover for the year advanced from £4.88m. to £5.48m. Tax took off £22,543 (£84,504) and £68,530 (£32,850) is retained.

Over the last three half-years Makin's profits have run at £124,000, £180,000 and £183,000 before tax, a sharp break from

surplus on property realisation.

Surplus October 25.

### Comment

Despite a healthy first half with profits up by 43 per cent, and an even better second half with profits up by 63 per cent—excluding an exceptional profit—Blackwood Winton's pre-tax profits have remained depressed at 7.5p the shares are on a net p/e of 3.2. The market clearly has its doubts about the carpet sector in the coming year, and not without justification. There has been a quietus than usual period in July and August following the pre-VAT boom, while raw material costs—in BMK's case mainly wool—continued to rise sharply. True, there have been several price increases; but with consumer spending apparently on a downward trend it may become more difficult to pass on higher costs. So while BMK has a useful buffer in its export trade—accounting for some 16 per cent of sales—and in its overseas interests, the shares are not the bargains that they at first sight may seem.

Those factors plus extended delivery of supplies for manufacturing, seem likely to cause second half sales and profits to be a little less than those for the first.

The chairman says the revival in the world wide demand is still being maintained, but higher operating costs are being incurred.

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The company manufactures pneumatic and electric hand tools, etc.

### Comment

Industries of "higher operating costs" with wages currently the most serious problem for any firm operating in London, take some of the edge off. Desoutter Brothers' pre-tax profits for the six months ended June 30, 1973, amounted to £10,050,000. The directors consider it prudent at this stage to provide for a tax charge of 30 per cent, after which net profits amount to £18,410,000. Sales of properties contributed a further £1.5m. profit which has been transferred to capital reserves after provision for deferred taxation.

Earnings per share for the six months were 8s.11. The results are not comparable with the corresponding period of 1972 due to the acquisitions of Prudential and Park Hotel and the rights issue in December, 1972. However, after adjustment for the rights issue, earnings per share for the full year 1973 were £1.02.

The company has recently acquired the Brussels "Poort Shopping Centre in Maastricht and with effect from December 1, 1973, this fully let shopping centre will provide an attractive yield and has developments in hand of approximately £15.7m. which should contribute substantially to earnings in 1974 and 1975, the statement adds.

The directors say they are confident that, in the absence of unforeseen circumstances, the growth shown in the interim results will lead to a satisfactory year.

Net assets at book value stood at £10,30.8m. at June 30, 1973 (£10,20.4m. at December 31, 1972), with per share figure shown at £10.26 (£10.41).

### Comment

Desoutter's profit for the year advanced from £10,050,000 to £18,410,000, a 84.8 per cent increase.

Surplus October 25.

the steady returns of the past; the five-year average to 1971-72 was only £215,000. Solid demand plus price rises are apparently the main cause, aided by some loss-elimination at the Welsh paper mill and at Compton Makin, which makes electronic organs. It will be for the accounts to allay fears of a "flash-in-the-pan" recovery. Meantime, a 5.3 net p/e at 87.5p stands against a net worth of 125p.

## Blackwood Morton tops £1.8m.

SALES FOR the year to June 30, 1973 of carpet manufacturers etc., Blackwood Morton and Sons (Holdings), expanded from £18.12m. to £20.39m. and pre-tax profit advanced from £1.06m. to a record £1.82m., after £0.88m. for the first half.

A final dividend of 3.17575p net, equal to 3.125p gross, raises the gross total from 4.75p to 4.905p per share.

The substantially improved result reflects increased sales in all departments, the directors say.

In woven carpets, the company's share of sales by U.K. manufacturers again increased, while in tufted carpets, turnover of Thistletextiles Carpets increased to £32,291,000, and there was a profit of £10,548. In Canada, sales improved and profits showed a substantial rise on the previous year.

Overall, export sales increased by more than 37 per cent.

The relationship between the book values of fixed assets and those for tax purposes now warrants the use of tax equalisation techniques and the change in law (up from £229,149 to £742,007) includes an amount for U.K. tax.

Net profit was £1,081,378 £833,303) plus £19,633 (nil) surplus on property realisation.

Surplus October 25.

### Comment

Despite a healthy first half with profits up by 43 per cent, and an even better second half with profits up by 63 per cent—excluding an exceptional profit—Blackwood Winton's pre-tax profits have remained depressed at 7.5p the shares are on a net p/e of 3.2. The market clearly has its doubts about the carpet sector in the coming year, and not without justification. There has been a quietus than usual period in July and August following the pre-VAT boom, while raw material costs—in BMK's case mainly wool—continued to rise sharply. True, there have been several price increases; but with consumer spending apparently on a downward trend it may become more difficult to pass on higher costs. So while BMK has a useful buffer in its export trade—accounting for some 16 per cent of sales—and in its overseas interests, the shares are not the bargains that they at first sight may seem.

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### Comment

Desoutter's profit for the year advanced from £10,050,000 to £18,410,000, a 84.8 per cent increase.

Surplus October 25.



"I look forward to the current year's outcome with confidence," maintained Mr. L. M. Ratner, chairman and managing director of Ratners Jewellers, in his statement presented to the annual meeting yesterday.

### DIVIDENDS ANNOUNCED

	Current payment	Date of payment	Corresponding date for last year	Total for last year	%
Ayer Hitam Tin	3rd int 3.45(1)	Oct 18	1.15	13.9	11
Blackwood Morton	2nd int 2.25(1)	Oct 7	2.25	4.2	11
Brighthouse Elect.	2.25(1)	Oct 3	nil	nil	11
Coles Bros Elect.	int 1.57(1)	Jan 4	—	1.5	11
Desoutter Bros.	int 4.39(1)	Oct 1	2.75	10.25	11
Eastern Produce	int 1.75(1)	Nov 5	—	8.8	11
Glendevon Trust</td					

## BIDS AND DEALS

City Offices-Barclays  
Int. property deal

City Offices is selling to Bar-31.56 per cent. of the Ordinary asset value seen with other SW trusts and when Mr. Vickers made an offer above asset value "we felt we could not but accept."

Institutions behind Mr. Vickers are Sime Darby, Jonian Bank, Hill Samuel and Sentinel and National Insurance Group.

Eldridge  
Stableford  
expansion

Consideration is £1.5m. cash. Properties being disposed of appear in balance sheet at December 31, 1972 at professional valuation of £2.5m.

That portion of the company's pre-tax profit for the year to that date applicable to the properties was £101.272.

Proceeds, after capital gains tax which cannot yet be quantified, will be used to finance the office development in Bristol and other property developments still in course of negotiation, which will provide, on completion, a considerable increase in both gross income and profits it is stated.

Austin Hall  
may bid again  
for Hallam

Austin Hall might well bid again for rival systems building group Vic Hallam, maintained AB chairman Mr. Terry Maher yesterday.

With this in mind, the Stock Market marked up the price of Hallam shares by 13p to 174p yesterday, compared with the 170p cash offered by Montagu L. Meyer agreed by most of the Hallam directors at the weekend.

Mr. Maher said yesterday that AH has either taken up or was about to take up options on shares held by two Hallam directors—Mr. Gordon Hallam and Mr. Alec Hudson—and their families.

This would give it more than 36 per cent. of Hallam bought at an average of under 120p a share." Stated Mr. Maher: "We will wait to see the formal offer documents and what other information we can get from Hallam before deciding our next move. One of the alternatives open to us is, of course, to make another offer for Hallam."

Meyer has said that if its offer succeeds it will back off half the Hallam shares to May and Hassell, both of whom are being big suppliers to Hallam.

Meyer has more than 11 per cent. of Hallam already and the directors of Hallam—excluding Mr. Gordon Hallam and Mr. Hudson—will accept in respect of more than 26 per cent. Thus, roughly speaking, Meyer and AH start neck and neck with their Hallam holdings.

The only other significant shareholder in Hallam is Industrial and Commercial Finance Corporation which has 6 per cent. and has so far been quite quiet about its intentions. There are two other institutions with around 2 per cent. each of Hallam.

With the prospect of AH getting involved again in a bid for Hallam its own share price fell 3p to 137p yesterday.

## SHARE STAKES

P. R. Grimshaw and Co. has further increased its holding in Gale Lister by market purchases and now holds 265,300 Ordinary shares (22.23 per cent.). Grimshaw also announces that its holding in Greenwood and Bailey now total 34,300 Ordinary (24.43 per cent.).

The Slater Walker Securities Interest in Dundee, Perth and London is now 970,500 (17.40 per cent.) Ordinary shares.

Following capital reconstruction, M. V. Cownn holds 10.18 per cent. and Lauchneralp Holding 30 per cent. or more discount on

More Bids on  
Page 33

1974 and 1975—will be equal to pre-tax profit of Kelvin for its years to mid-1974 and mid-1975 and are payable in Hallam shares. Vendors have the option to require payment in cash or shares and third instalments to be in cash, but the total consideration is limited to a maximum of £1m.

Kelvin anticipates profits in excess of £350,000 for the year to May, 1974. It imports, exports and distributes electronic components.

Consideration for the 49 per cent. of the shares of the Eldridge group was worth £100,000. The vendor is warranting pre-tax profit for 1974 of £100,000 or less, although about £80,000 is expected. Appropriate restrictions are being placed on the sale of all Eldridge shares involved in both acquisitions.

SW selling  
out of  
Whinsparken

Slater Walker is selling out of Whinsparken Investments, one of the investment trusts it floated only last November. SW is willing to accept a 20 per cent. stake in the Whinsparken share for £1.5m. This may drift to a sizeable discount on asset value as has been seen with its Slater Walker Investment Trust and Slater Walker Far East Trust and other trusts.

The purchaser, at 46p a share (which values Whinsparken at £1.4m. and compares with a market price of 44p) is Mr. Martin Vickers, former investment manager of C. G. Cawdron and a director of Prism Investments (the ex-Marine Quant company) until it was taken over in 1971.

Mr. Vickers, with certain major shareholders, has already purchased 33.37 per cent. of the shares from SW and its investment clients and he will offer the same price for the remaining shares.

Price paid is about a 30 per cent. premium over the net asset value of each share. The three directors have resigned and Mr. Vickers, Mr. G. Dean and Mr. G. Jones have been appointed to the Board. Mr. Dean is chairman and Mr. Vickers the managing director.

The new directors plan to continue managing Whinsparken so as to ensure as far as possible that it can remain an authorised investment trust.

Mr. Brian Banks, who has just resigned as a Whinsparken director, and yesterday left the directors of SW Investments, which acted as managers, had hoped Whinsparken would command a market price to reflect its performance. However, they became worried it would go to the large number of shareholders.

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# Rubber and Synthetic Rubber

## Prices register a remarkable recovery

By ROBIN REEVES, Commodities Editor

It was just under a year ago that the rubber market suddenly experienced a sharp filip in prices. At the time nobody took it very seriously. It looked to be a short-lived speculative upsurge which would soon die, leaving prices to drift back to the levels—the lowest for 23 years—plumbed earlier in the year. But far from being short-lived, the recovery turned out to be an almost unrelenting upwards climb and the outcome is that to-day rubber producers are enjoying the best prices since the Korean war boom over 20 years ago.

By any standard this is a remarkable turnaround in the industry's fortunes and it is not surprising that there is some nervousness among producers that it may not last. The rubber market's experience has been that the periods of depression last much longer than those of buoyancy.

### Surplus stocks

Before the present upsurge, producers of both natural and synthetic rubber had to live through three years of very depressed conditions. This situation was caused basically by an imbalance between world supply and demand. It led to an accumulation of heavy surplus stocks overhanging the market. The position was further aggravated by sales of surplus rubber from the U.S. national stockpile, strikes in the motor industry and in the docks, notably in the U.S., and by the growing instability of world currencies. The Malaysian Government attempted to shore up the natural rubber market by giving buying support, but

the operation had limited success. rubber plantations provided the grammes.

It is the recovery in the U.S. impetus to expand world synthetic rubber production with the world's biggest single natural of the industrial world which has put the rubber market back on its feet. Faced with expanding order books and rising rubber prices, consumers quickly switched from a policy of following 15 years natural holdings. Equally important, this purchasing from hand to mouth rubber production partly has been done without loss in efficiency since it has gone hand to buying ahead in order to recover its position. By 1980, cover their future requirements, it accounted for more than half Even so, the situation was the rubber produced which changed in remarkably quick this time totalled close on 5m. times from one of general tons. surplus to distinct shortage of some grades of rubber.

It remains to be seen how long the present excellent market for both producers and consumers will last. But it is difficult to avoid the conclusion that the industry will always have to live with fluctuating markets. Whereas demand is fairly volatile, production is dependent on either sophisticated chemical plants which take a lot of time and money to build or on trees which presently require six years from planting to the provision of an economic yield.

In these circumstances, maintaining a continuous balance between world supply and demand is well nigh impossible; particularly since the single most important fact about the world rubber industry is its dramatic expansion. Only 70 years ago world production amounted to a few thousand tons extracted from the Amazon jungle and even at the beginning of the last war total output was only a little over 1m. tons, almost all of which was natural rubber.

The war and the Japanese

achievement of Malaysia

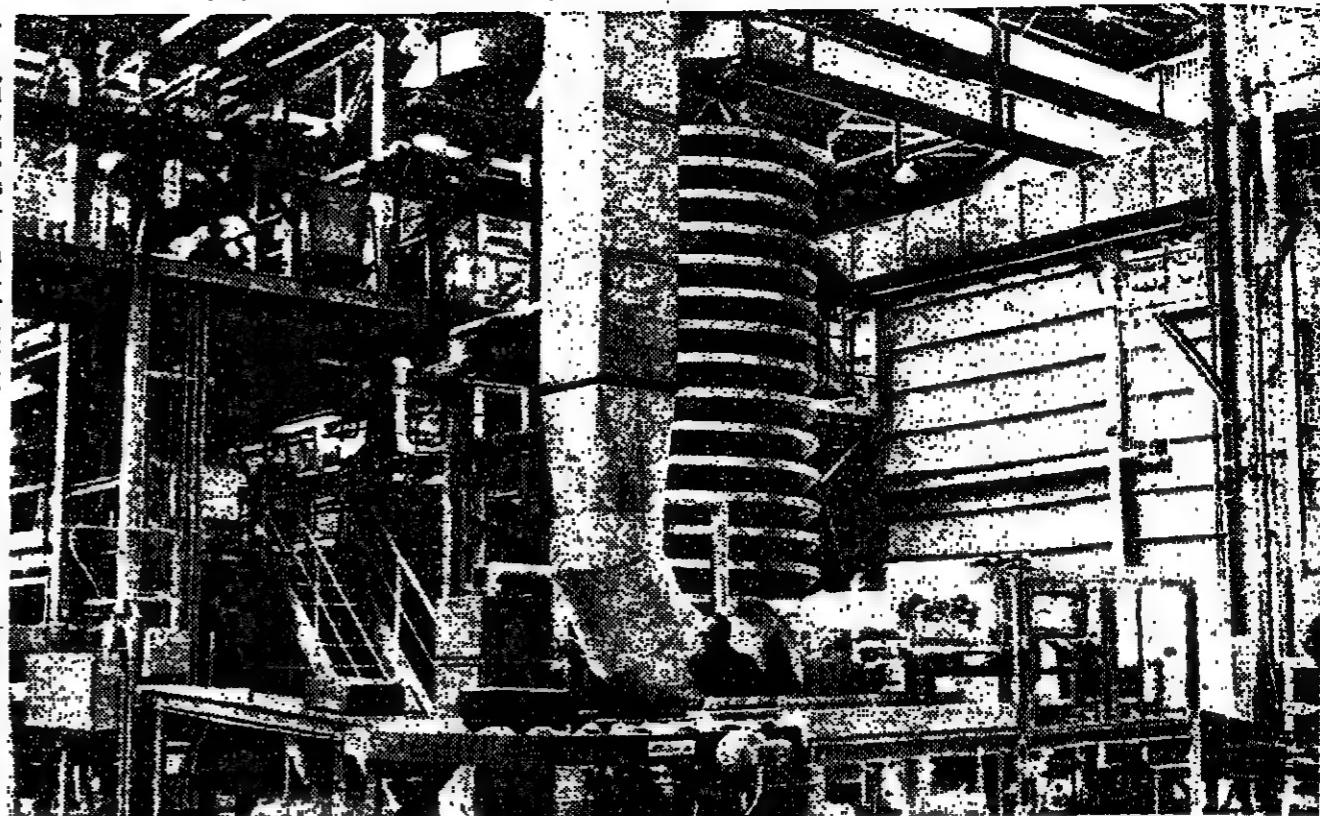
in improving the quality and reliability of natural rubber by processing an ever increasing proportion of its output in a way which allows it to be technically specified.

The technical ingenuity of the synthetic rubber industry has never been able to reproduce all the properties of the natural product, but natural rubber has suffered from the fact that buyers can never be absolutely sure of the quality of the rubber bought. The production of technically specified natural rubber such as Standard Malaysian Rubber is helping to overcome this problem.

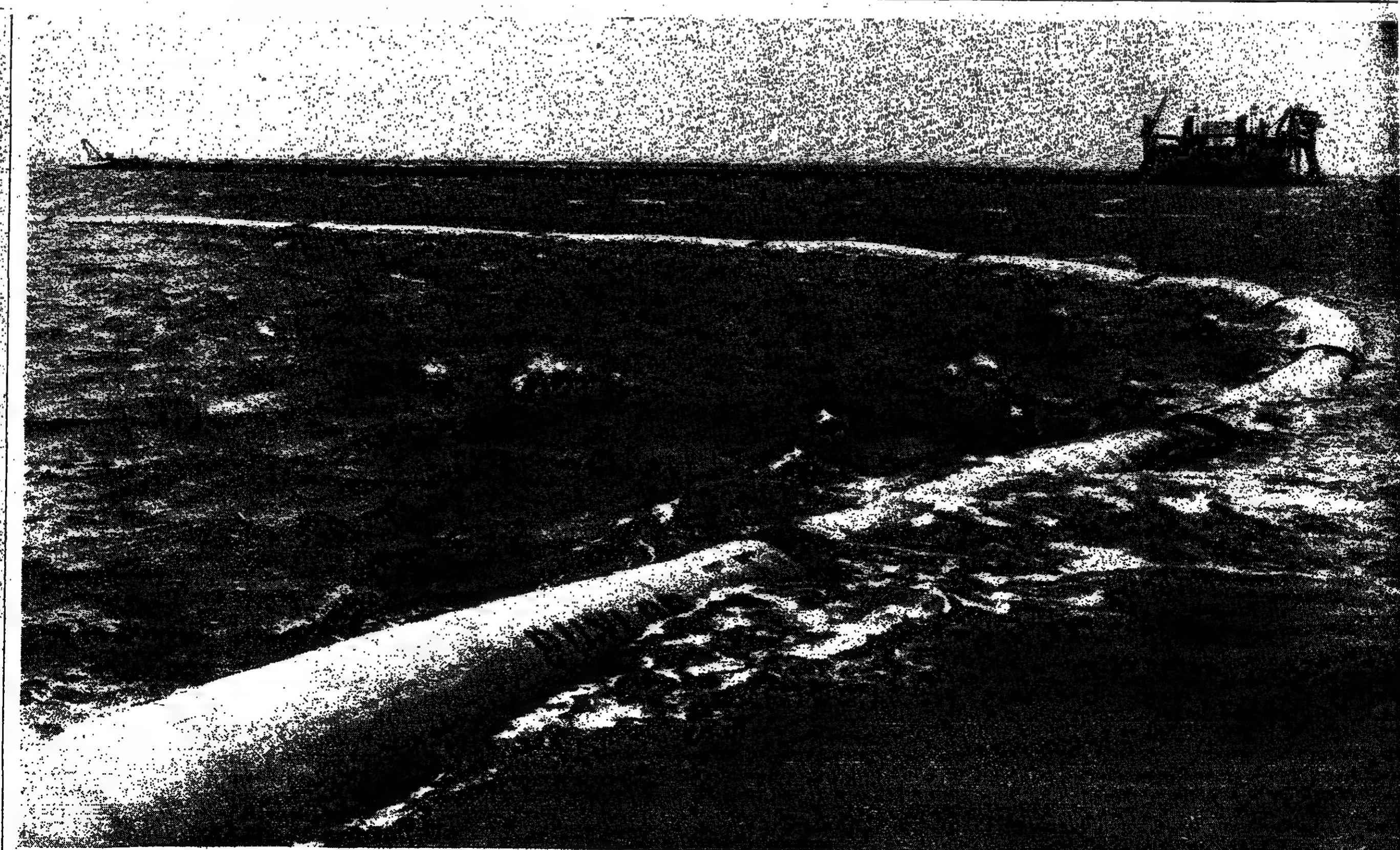
But it seems fair to assume that the two producing sides of the industry will always be in contention. Indeed the competition between the two has spurred both sides into a greater effort to produce what the customer wants at the cheapest possible price and to find completely new outlets for rubber's unique properties.

Tyres remain easily the biggest single market for rubber from both sources, but the main area

of competition has now moved a price war between different of scale while also enjoying unlikely as ever. The areas such as the building, against natural rubber but in over. Indeed, the energy crisis, discuss plans for a electrical and footwear industries the end proved painful for all so called, has ensured that rubber in periods of concern. synthetic producers are not. But it is difficult to see if competition does not intensify to the ruinous so difficult for natural producers' the natural industry. Both producing industries The best guarantee that conditions will never again be quite market to the same extent as co-operation of the rubber industry, much levels experienced at certain is the fact that the period during which synthetic producers five international schemes to and not in a po early 1970s. This was as much were reaping major economies stabilise rubber prices looks as participate.



Synthetic rubber plants have proliferated round the world. Picture shows part of the Porto To plant in Sardinia of Italy's Societa' Italiana Resine.



### WE CARE ENOUGH TO FIGHT THE SEA

Dredging at sea, particularly the North Sea, can be hazardous—especially if the operation calls for a floating discharge line from the dredger, when storms and gales can damage traditional pontoon-supported steel line and cause a costly hold-up.

Not any more—the unique giant SELFLOTE rides the waves and has enabled dredging operations to continue in a Force 9 gale—a vital link in the shifting of sand from the sea bed to create new land.

WE TAKE CARE. To the man on the dredger that means saved time and money... to others it can mean safe tyres or comfortable beds or sureflight golf balls... but always it means relentless care in the development of new ideas, better products.

 **DUNLOP**  
way ahead

## RUBBER AND SYNTHETIC RUBBER II

## World consumption linked to industrial growth

By NICK DOAK, Editor, European Rubber Journal

Rubber is an indicator material in that its consumption per capita is directly linked to the Gross Domestic Product of the consuming country.

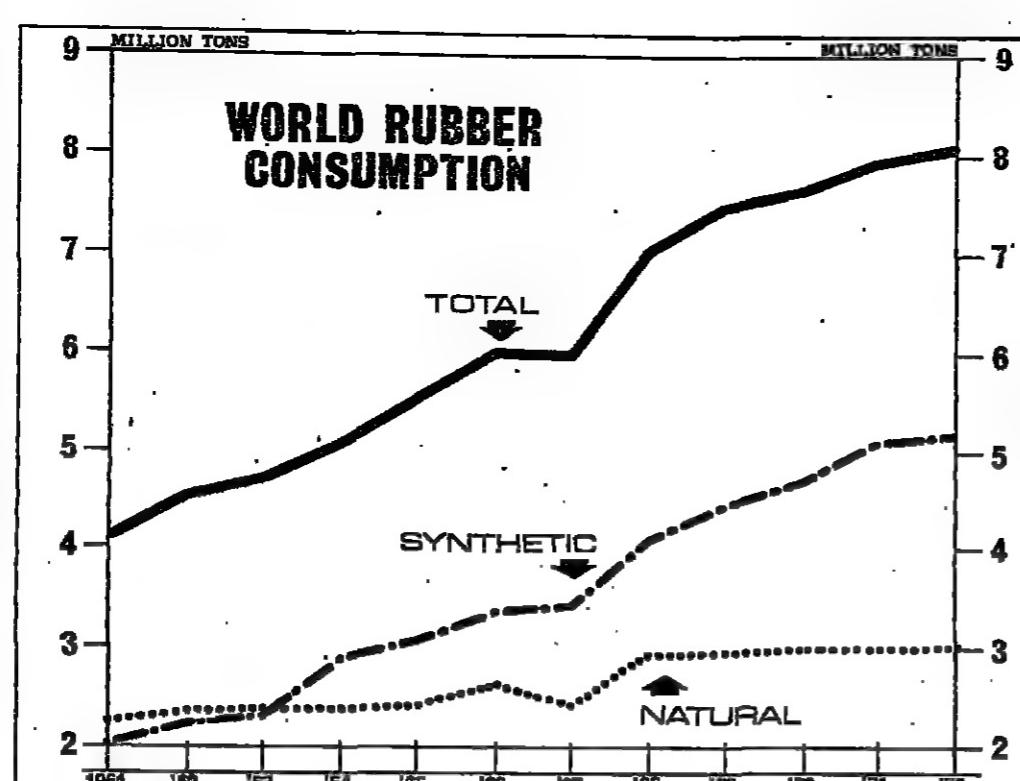
This fact comes about from the dependence on rubber of the transport industry, especially automobiles. Of total rubber consumption some 38 per cent is directly absorbed by the tyre industry and a further 8 per cent is absorbed by miscellaneous mouldings and extrusions used in vehicles and other transport sectors. The remaining 33 per cent of the total rubber cake is then divided among virtually every other industry in the world, with none of them taking more than single figure percentages. In fact in terms of total tonnage the use of latex in carpets, textiles and papers may well be the second largest rubber use outside tyres.

Before the last war there was but one large tonnage general purpose rubber available—natural. The post-war period saw the rise of synthetic to a position of dominance world wide by the early sixties. The extrapolative trend has resulted in the steady erosion of natural's share of the total market although, because of the more rapid overall rise in rubber demand, the actual tonnage of the natural product consumed each year has continued to rise. At this time natural holds some 33 per cent. of the total market, although the Malaysians recently voiced the opinion that the "techno-economic" norm for the balance should be 42 per cent. which seems eminently reasonable.

However, the entry of "force majeure" in the form of an energy crisis, could wreck any such predictions, as well as wrecking the industry itself. were such a crisis to cripple the car market, or seriously restrict motoring in any way; disregarding too any effects that such a crisis would have on the synthetic rubber maker's feedstock situation.

Examining the rubber industry's biggest product sector—tyres—both natural and synthetic rubber makers must be prepared to accept some slowdown in overall consumption growth in this area.

The final acceptance by the Americans of the radial tyre, now means that the major tyre consuming areas of the world are committed to a product which wears up to twice as long as its immediate predecessor without consuming any more at least a short-term future.



rubber. There is the further promise that complete capitalisation of such developments as the Dunlop Denovo and the recently revealed Pirelli compression sidewall tire will increase tyre mileages even more. They may improve the manufacturer's margins but they still won't use any more rubber.

## Largest product

The radial passenger tyre—which must be counted the rubber industry's single largest product—has shown little change in the balance of the materials it uses from its antecedent, the cross ply. This would seem to conflict with statements about European radials containing up to 40 per cent of natural rubber, but in the period 1962-1972 when the steady swing to radials took place in Europe, natural rubber's share of the tyre rubber market decreased rather than increased. As an example, in France it went from 58 per cent to 41 per cent over this period, in Italy from 60 per cent to 43 per cent, and in the U.K. from 49 per cent to 41 per cent.

Where natural is still a major tyre rubber is in sizes larger than passenger car and light van. Here natural rubber's ability to run cool in large tyres of radial construction ensures it reaches 20 p/kg of the tyre maker's rubber.

The problem with the tyre industry is that in terms of rubber consumption, one tends to get blinded by it. Any other usage of rubber is held up against tyres and assessed as minor. Because of this there are many people in the industry looking for another tyre—a fifth wheel to add to the car which will engender rubber consumption on the scale of tyre usage. At present the El Dorado seen in safety devices and it is envisaged that the car of the future may well be adorned with rubber bumpers and pontoons, to take a totally random selection. It is in many considerable dimension along both sides and at front and rear, from general purpose rubbers to medical components, fluid seals, belt-packing, hoses and building com-

ponents, to take a totally random selection. It is in many considerable dimension along both sides and at front and rear, from general purpose rubbers to medical components, fluid seals, belt-packing, hoses and building com-

1,000 and 10,000 tons of rubber a year, and apart from tyres and a few areas such as conveyor belting, hose, footwear, flooring and adhesives, no rubber use accounts for more than one per cent of total consumption in a year. The typical non-tyre end use consumes around 5,000 tons a year of rubber.

At the same time there is a fairly high innovation rate for such uses, and this ensures that a fresh platform is provided on a continuing basis to keep non-tyre rubber growth rates up, in support of organic growth in established products such as hose and belting.

To achieve any major growth however, the rubber industry must fall back on engendering growth in the motor industry and hence growth in tyres and transport products. The reason is simple. If we could double the market for conveyor belting overnight—an unlikely achievement—then the world consumption of rubber would rise some 3.8 per cent. One could achieve this sort of increase with considerably less effort by engendering a 3 per cent. growth in automobiles, a far more realisable goal when one considers the vast potential for swamping the under-industrialised third world with cars and trucks.

However, all this said, it is towards finding new uses for rubber that the producing industry is still striving in some cases with "consumer-pull" from other industry sectors.

Even with both areas working together there must still be an acceptance that any new use which does arise will absorb a rubber tonnage probably less than a tyre maker's scrap produced in a year; and yet such new uses are continually needed to engender growth in the industry, and to replace growth in established uses "peak out" or older applications dwindle and die.

Whatever else, the producers—plantation or refinery based—have to live with the fact that they are wedded to a market which is overshadowed by the energy crisis and from which at this time they cannot expect firm guarantees of continuing growth.



## SMR—a thousand tonnes a day.

And that's a lot of rubber, even for the world's fastest growing polymer. Standard Malaysian Rubber is now used at the rate of 400,000 tonnes a year. Every day, 1,000 tonnes of SMR, equivalent in volume to a block of offices, is shipped from Malaysia. Because SMR is in increasing world-wide demand to solve tough problems and to further productivity throughout industry.

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## PORTO TORRES 1973:

S.I.R.  
RUBBER IS BORN

## Investment in rubber via the stock market

By JEFFREY BROWN

First-time investors in the rubber growing industry are advised to find a good stockbroker. London's ready-made market in rubber futures is naturally open to all-comers but the uninitiated Stock Exchange (and its wide variety of quoted plantation companies) offers less nerve-wracking introduction.

The association between the London stock market and the rubber growing industry is additional, dating back to the latter's very beginnings almost a hundred years ago. In 1875 rubber plants were removed from their native South American forests and shipped to England for cultivation at Kew. shortly after, they were once again on the high seas, this time heading for the Far East backed by British capital. Landing was carried out in India, Ceylon and Malaya, and the three Malaya was destined to become the most important commercial growing area. It remains so to-day.

For the U.K. investor this additional link between the stock market and the raw rubber is important. Basically it means that the vagaries of futures market can be hedged. Not that share prices themselves offer total immunity from fluctuation, but they tend to offer more stability, in terms of reduced risk than futures or a salutary lesson look at how Rowntree Mackintosh and its financers recently hit the market for cocoa futures.

## Massive revival

The major reason for investment in rubber plantations to date is that the commodity is finally experiencing a massive revival in demand. Malayan economy has been working through a period of fast growth for some time, until the latter stages of the country's rubber cycle was in the midst of a recession. At one time last the price of rubber hit its est level for more than two

## Spreading risks

The reasons for this changing basis of appraisal are largely two-fold. First, practically all the old political risks associated with Malaysia have vanished. Secondly, the rubber planters' diversification into palm oil has added an extra dimension to the industry by spreading the risks of crop or price failure. Roughly speaking, the average Malaysian plantation company gets about 60 per cent of its profits from rubber with the balance accruing from palm oil. Moreover, many leading rubber companies now have extensive interests outside the tropics.

Guthrie Corporation, far

and away the largest grouping within the Malaysian plantations sphere, is an obvious example of this latter category with some 40 per cent of profits last year stemming from industrial interests in both the U.K. and Canada. Another company with sizeable U.K. earnings is Plantation Holdings, while Yule Cato is equally diversified and the Kulin Group owns an hotel in the West Indies. But for all this the major investment interest in the rubber sector springs from to-day's high prices for its two major commodities.

Currently the spot price of rubber is around 35p a kilo. That compares with a 1972 low of 11.45p and an average price of 20p a kilo of the tyre maker's rubber.

The problem is that such a sbr market will not bolster the fortunes of the rubber producers in the event of the energy crisis materialising. Besides tyres, estimated to absorb between

its name SIREL®. It was born in the petrochemical complex at Porto Torres, where a new plant for the production of SBR rubber has just come on stream.

After synthesis, thermosetting and thermoplastic materials, chemical, petrochemical and petroleum products, synthetic fibres, to-day SIR produces rubbers for innumerable uses such as tyres, boots, electric cables, technical products and sporting goods.

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# RUBBER AND SYNTHETIC RUBBER III

## Active programme of research

By TED SCHOETERS

Faced with the serious financial poser put to all industrial

research associations by the most recent shifts in official research and development policies, one of the two key research organisations in the U.K. rubber industry — RAPRA (Rubber and Plastics Research Association) — is seeking to gain a broader contributing base by expanding its coverage of Europe. In October, a two-day meeting will be held in Gothenburg to acquaint the Scandinavians with the services the Association can provide in helping to solve problems in both the rubber and the plastics industries.

RAPRA expects this move to add to its membership list, and thus income, in Scandinavia as well as throwing up a number of new problems of general interest to the industries.

Overseas companies should not need much convincing of the competence of this organisation, which has a number of significant developments to its credit on the applied research side. One of the most recent projects has been the pressurised fluidised bed for the continuous vulcanisation of long lengths of hose or conduit.

### Several months

The outcome of half a decade of work on fluidising as an excellent means of heat transfer to an object being processed, the equipment developed has been moving into users' plant for the last several months. As now developed, it is able to accept tubing up to 80mm (3.25 inches) in outer diameter operating at pressures from atmospheric to 100 psi (7.03 kg per sq cm) and at temperatures up to 350°C.

Users ring the changes between temperatures and pressures to achieve optimum cure of their product.

Heat is provided by electrical means. The fluidised bed is made up of Ballotini, small spheres of glass which are to pay for the powdered material chemically inert and non-wetting and—fluidised by the injection of superheated steam—provide support to the extruded metric tonne for the process to produce while it is still in the soft, uncured state. The process is modular and sections of the extruder are added as required. Units such as the Ballotini removal for powdered material to be equipment, sensor pack, seal around £30 to £40, diminishing unit and so on are necessary with growth in the volume of

auxiliaries and only one of each is required per plant.

One major problem solved by RAPRA workers was that the glass spheres tended to stick to the surface of the uncured rubber and must be removed after curing. This was finally solved by passing the cured product through an annular chamber in which steam jets are made to impinge on the tubes, carrying a shower of spheres with the steam.

The glass particles strike the surfaces with enough force to detach adhering particles from the cured material.

Developments which led to the present equipment, the open fluid beds for continuous vulcanisation of extruded sections, quickly found their way into the automotive industry.

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More important still is the fact that powder processes almost obviate the need to shear rubber and, with this, the introduction of unwanted heat. Cycle time also is considerably reduced and the way would appear clear to the elimination of heavy duty compounding and other equipment and its replacement by light and much less costly units.

The key to the whole problem is the premium users will have

spheres of glass which are to pay for the powdered material chemically inert and non-wetting and—fluidised by the injection of superheated steam—provide support to the extruded metric tonne for the process to produce while it is still in the soft, uncured state. The process is modular and sections of the extruder are added as required. Units such as the Ballotini removal for powdered material to be equipment, sensor pack, seal around £30 to £40, diminishing unit and so on are necessary with growth in the volume of

output. This is not the only pre-condition for the growth of a new branch of the industry.

There would also have to be many types of powdered material on the market and the processes into which these were drawn would have to be both reliable and economical.

### Test procedures

Because rubber is a particularly difficult material to standardise and test and because many problems arise in the course of studies to define what properties are required and how they should be measured, it is hardly surprising that a great deal of the work of the RAPRA organisation since its inception has been on test procedures and the development of the appropriate equipment to apply them.

Throughout the rubber industry, laboratories and quality control sections are using RAPRA-developed devices including cureometers, age testers and ozone cabinets.

While RAPRA represents the industry as a whole, the Research Association which represents the natural rubber producers could be having a field day in so far as the present threat to petroleum supplies is concerned.

NRPR (Natural Rubber Products Research Association) sees natural rubber as having an inherent potential "far exceeding its present usage, with opportunities for new uses for natural rubber having a respectable consumption tonnage and further growth to come."

The association's main project at the moment is the development of the natural rubber winter tyre. Many countries already have banned studded tyres of current designs because of the damage these can cause to smooth road surfaces overlaid by snow and ice layers.

These tyres have been undergoing the most exhaustive trials possible in the circumstances, bearing in mind that Holland, West Germany and some of the U.S. States have reacted sharply against standard studded tyres.

Under investigation in the U.S. It is already being im-

proved in the U.K. by the addition of a method which would combine it with conventional sulphur vulcanising. This adds the age-resistance of the previous system to the high speed of cure possible with sulphur vulcanisation.

Inspired by NRPR, the Ford company has developed the Ford Elastomeric Absorber based on natural rubber and representing enough consumption of basic material to be made equivalent to a fifth tyre on each vehicle.

This is a significant development in the present circumstances where vehicle safety is a paramount consideration. Its extension to the complete wrap-around bumper system absorbing even more raw material is only a matter of time.

Liquid rubber materials, on the face of it, should represent an easy entry into the bulk markets because such materials ordinarily represent the simplest way of starting a major production programme.

Unfortunately, so many of the big consumers of rubber have based their production systems on the heavy, expensive approach which has to be written down over a period of years that it is doubtful whether the new approach, leading to full automation, can be accepted before the so-called "third generation" liquid rubbers appear—they being available at much bigger premiums than the powdered materials mentioned above.

The fringe applications of latex are, of course, legion and expanding very quickly. Carpet backing in the fully fitted market is only one extremely successful area, hotly disputed by the natural rubber boys.

A new and interesting area for this material is the "sports surfaces" in which crumb rubber, latex and a cement are

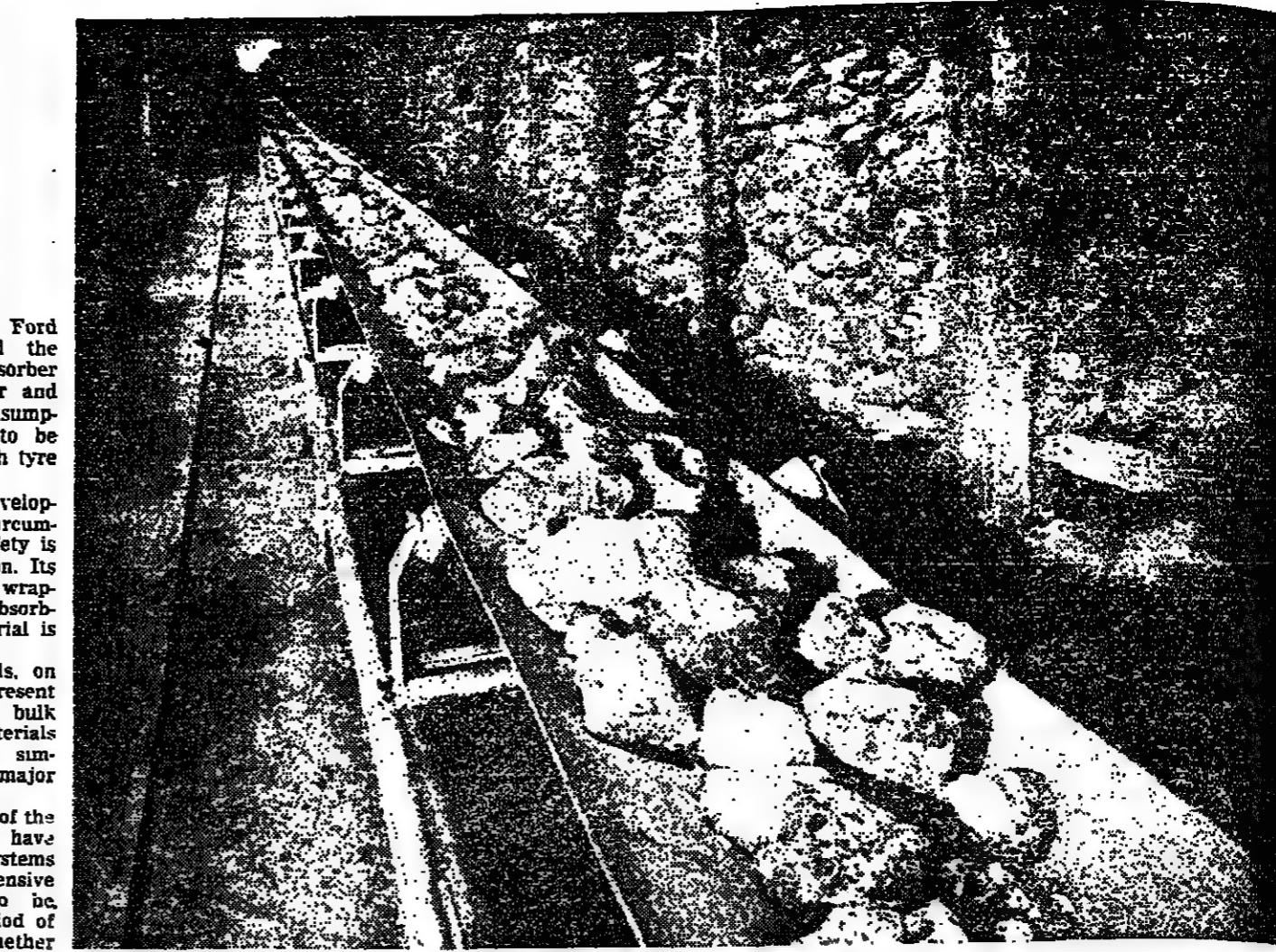
combined to give a non-slip surface with the resilience needed to protect the muscles.

Urethane vulcanisation is another process which has resulted from NRPR investigation. It offers a number of advantages to users in that it is paired with less than 1m. tons in producing a new range of pre-war. In the same time, however, technically specialised rubbers improves ageing properties of natural rubber as well as giving better reversion characteristics.

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proved in the U.K. by the addition of a method which would combine it with conventional sulphur vulcanising. This adds the age-resistance of the previous system to the high

speed of cure possible with sulphur vulcanisation.



Section of a 14,000 ft. installation of synthetic rubber covered Fenoplast belting (a product of the J. H. Fenner group of Hull) for the carriage of minerals. These include coal, granite, chalk, gypsum and gravel.

## Natural bounces back

By JOHN EDWARDS

Natural rubber has for many years fought what seemed to be a losing battle against its synthetic rubber rivals. Since certainly have to go up and greater the amount of natural always managed to dispense with the use of natural rubber's share of the total world rubber sales has the current inflation in costs need to control heat build-up levels.

But such is the importance of recession by buying natural rubber exports to example, by aircraft tyres landing at high speeds.

For this reason natural national co-operation b rubber has always enjoyed a the natural rubber's share of the commercial vehicle tyre market. However, out the effect if possible to make bigger inroads into the huge passenger car tyre fresh onslaught by synthetic producers.

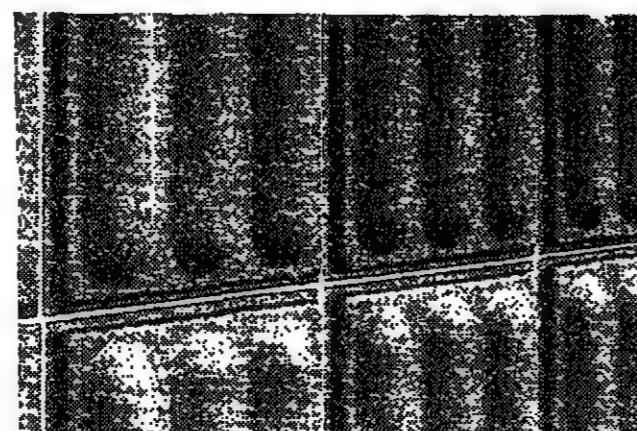
A strength and weak natural rubber product that it is gradually passing from the big estates to holders. The loss in production is compensated

by the reduction in gelling quality standards, and ensuring adequate supplies at higher yielding tree rubbers, with the official introduction of the Standard Malaysian Rubber scheme in 1965. natural rubber available at a time of depressed demand, of the new SMR rubber there has also been severe produced, but by 1970 this had risen to 300,000 tons and other occasions. Continuity of supply is one of the most expected 4m. tons of natural important factors influencing rubber produced, at least 1.25m. buyers, so temporary shortages tons will be technically specified on future demand.

These improvements in Historically, however, rubber consumption is very vulnerable. In the long term, it is important for natural rubber to take advantage, such as being predicted for later this year or in upward trend in output will synthetic output and certain trends 1974. The Malaysian Government in tyre manufacture, which has in recent years helped share of the total market.

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The new technique enabling such startling reproductions is the outcome of development work on silicone moulding rubbers by the American company Dow Corning and work by craftsmen in the mouldmaking workshops at the Louvre museum together with consultant fabricators such as Mr. Baudin of SDDN in Metz. The reproduction process involves a flexible silicone rubber mould made from the

original statue and which subsequently reproduces absolutely every detail down to the finest hair or crevice. This same casting process is now being used at the Musée de l'Homme to reproduce such widely different objects as delicate computer components and paleontological remains. Work

is employing this technique to details in the evolutionary time scale as a result of the precision of the moulding process.

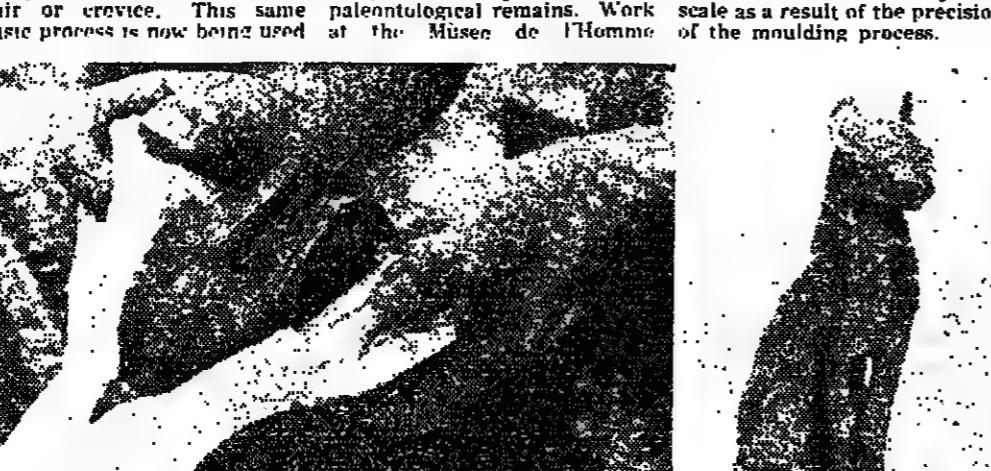
Employing this technique to details in the evolutionary time scale as a result of the precision of the moulding process.

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## RUBBER AND SYNTHETIC RUBBER IV

## Growing uncertainty in synthetics

By NICK DOAK

If current growth in demand needs of the post-war boom, and countries, pushing output of first in that the largest customer for the industry's products was reactivated in the late 'for' 20,000 tons in 1960 to over 200,000 tons last year. (In itself threatened by the industry with an assured future some period the U.K. moved "energy crisis".)

Plans and investment programmes for the necessary new plants and expansions will need to be completed within the year. These million tons are to materialise on time, but, right now, the industry's planners do not know whether current demand growth can be sustained, or basic feedstocks provided, to justify this investment.

Richardson's synthetic rubber industry has enjoyed a grossed annual growth rate of around 10 per cent, despite recurrent periods of overcapacity. This has resulted from long-range planning of large plants derived from extrapolation of past curves for product, and has enabled the industry to weather the variable economic climate since World War II. Now, for the first time, the world's synthetic rubber makers face an uncertain future and appear to have lost the resilience of their products.

The modern synthetic rubber industry came into being in the war, when supplies of the natural product were cut off. Its genesis was pre-war, but its growth and maturation took place during the conflict. The war-ravaged plantations of South-East Asia were subsequently unable to supply the rest, including all European

plants went up in the newly emerged industrial nations, much akin to the proliferation of synthetic airlines.

**Brought lower**

The economic point for installing domestic capacity rather than importing was brought lower by the appearance of petrochemical refineries for feedstock supplies, and car and tyre factories for customers, around the world. Thus Japan, Australia, Brazil, Argentina, South Africa, Korea, Mexico, India and the Eastern bloc countries were soon into the business.

In expansion, Japan outshone

the synthetic rubber industry second in the world league to Japan, which had outstripped that of the U.S. In Europe, France name plate capacity for synthetic rubber is at present 8.36m. tons world-wide, actual production last year being 6.5m. tons, and consumption 6.4m. tons. This leads to the obvious question: why, with nearly 2m. tons of excess capacity lying about, do the planners think we may need another million by 1977, and why are they hesitant over its installation?

The answer to the first part lies with the fact that there is currently a boom on, and demand growth is running at a very high level. By 1977, we will need all our present capacity plus a good part of the million tons being talked about, leaving some excess for safety, and always remembering that name plate capacity is one thing, economic production capacity is another. This all assumes that present demand growth rates will be maintained over the next five years.

The hesitancy over putting money in now has two roots. The first is the undeniable difficulties presently being experienced in feedstock supplies; the second is symptomatic of the bracket being polybutadiene,

polysoprene and epdm, for all attractive alternative in many of which there are large applications.

As to uncertainty over future markets, the threats hanging over the internal combustion engine as a prime mover, and though they are at present in a better position than sbr with its proven feedstock shortage.

Butadiene, the other part of sbr and the route stock for polybutadiene, is readily available in Europe as a by-product of ethylene production by the naphtha-cracking route. For every 100 tons of ethylene produced you get 15 tons of butadiene, its only large market being the sbr makers. In the U.S., ethylene is made from ethane-rich gas condensate, and the synthetic rubber makers over there have to make their butadiene synthetically. An interesting thought here is the possible result of an ethane-rich gas find in the North Sea. Such a find could engender the adoption of an ethane route to ethylene in Europe, and deprive the sbr makers of their cheapest source of raw material.

**Higher price**

Polyisoprene, chemically identical to natural rubber, is also a well established synthetic, although at a higher price than the "workhorses" sbr and polybutadiene. The isoprene monomer used in its manufacture is all made by hydrocarbon synthesis and is therefore relatively expensive. However, with a general "trading up" of sbr prices as a result of the oil crisis, and the price of the programme into possible new uses, directed toward restoring some of its former bounce to its market, it is fast becoming an industry.

## Production capacity kept fairly busy

By a Correspondent

The U.K. can probably boast tinuous expansion of the Hythe plant was seen as a ability of feedstocks. Both are a current installed synthetic plant to produce more sbr, secure domestic source of specialty latex and abs plastics, much needed commodity, but in any energy crisis. If we from its simple start it has now an economic running capacity sbr in both emulsion and solution, polybutadiene, and carbon black masterbatch, and is half owner of a plant at Grangemouth in 1963, originally to make polybutadiene. At this time the plant makes solution sbr, epdm and carbon black masterbatch as well.

Besides sheer tonnage, ISR is set apart from the other members of the U.K. synthetic rubber industry in another way. It is the only large-scale producer of general purpose tyre rubbers—sbr and polybutadiene—for the U.K. rubber industry and was set up precisely to fill this role.

In the post-war boom, tyre makers came more and more to rely on styrene butadiene rubber (sbr) as their base raw material. In overall terms the U.S. had a virtual monopoly on production and U.K. companies had to import from them.

The dollar crisis of the fifties put severe pressures on this trade and it was eventually mooted that the U.K. should have its own captive sbr plant to supply the tyre makers' needs. The problem was that no single company could absorb the output from an economic plant, let alone afford the capital to build it, and so a consortium was formed which founded ISR with an initial capitalisation of £1m. The members of this consortium are Dunlop, Firestone, Goodyear, Michelin, Avon, Pirelli, Uniroyal and BTR.

In the meanwhile ISR had been idle. Besides con-

sumers such as paper, textiles and carpets have enjoyed more spectacular growth rates than vehicles, if not a base market of comparable size.

Because of this, and because ISR's plants have some inherent flexibility, ISR is itself a major supplier to these more rewarding markets, which it serves with latices. However, this must be seen as jam, with sbr and polybutadiene still forming the higher-volume, lower margin, bread and butter.

Looking at the other U.K. manufacturers, Uniroyal, Marbon, Dow and Revertex must all be classed as "non-rubber" suppliers. That is, they supply latices for industries outside the traditional consuming areas, a subject more fully covered elsewhere.

BP Chemicals manufactures nitrile rubbers both solid and latex. Again, much of the latex goes to outside industries such as paper and textiles, but the solid rubber is used within the rubber products industry principally in oil-resistant applications such as fluid seals and also in the manufacture of adhesives.

A similar pattern is seen for the neoprene made by Du Pont, the latex goes out of the industry, the solid rubber goes into weather and oil resistant products.

There is probably more success in terms of export, and on U.K. cars than any other material. Silicones, from Dow

Corning and ICI go into the top end of the market for resistance to imidical environments, and naturally as it will clobber everyone else in the synthetic rubber business, but this factor taken up by the tyre market, apart the longer term future of as butyl and halobutyl rubbers the U.K. synthetic rubber are used for inner tubes and industry can be seen in terms of steady rather than spectacular growth.

The long-term future of the U.K. synthetic rubber industry polysoprene to be added to the with the future of its major industry, and probably no more customer—the tyre industry—"greenfield" plants to be

# Towards a united American stock market

U.S. moves to unify all share dealings have morals for the future of the London market. From Nicholas Colchester, New York

SOME TIME in the future the ticker will begin to roll. It will specialist-dealer will show the puter and infallibly honoured descent from riches to rags this investment manager's eye. He because the past ten years have maker. To-day, with Nas bourses of Europe may well face show the last sale and the trade number of shares that he is and also to cope with a public justice is no consolation to the has none of the uncertainty of influence of the block-trading instantly shown up or the stock exchanges of America— that of creating single market—for securities out of a series America and in the "third terminal that gives him, on call, by the public be honoured in brokers.

market"—where dealers make

the competing quotations avail

able to him and he then trans

acts over the phone.

The transition to this second phase of the central market will require a mass of extremely careful rule-making, coupled with some complex computer programming. It will require

that all brokers have access to

If the reader begins to find surviving brokers to become what were once NYSE trades

every stock buyer can be brought into contact with every seller to create a truly representative price.

This is a process in which economic idealism runs up against reality. It confronts the vested interests of establishments with grave financial difficulty and makes them very unsure whether they want the status quo disturbed. When and if the process begins to evolve in Europe, the London Stock Exchange could find itself wrestling with the present dilemma of the New York Stock Exchange: it is the pre-eminent medium of securities trading; it is proud of its past, defensive about its present, and distinctly unwilling to see its well tried procedures buried in a maze of telephone lines and cathode ray tubes.

## Balking

The idea of the central market has spawned from the technology that made it possible. Science has raised its unblinking head in the City of London

in the shape of Ariel, the electronic trading system that threatens to let investing institutions by-pass the Stock Exchange.

Wall Street has already digested its equivalent—in other words, prices before

are propagated from everywhere else, hard over NASDAQ, another in the U.S. in elsewhere else.

The electronic network needed to achieve this will be broadly similar to the NASDAQ system already working in the over-the-counter market. Specialists and dealers in any stock type the New York Exchange but

their quotations for that stock allowed on to some regional exchanges.

In addition, the system will be designed to allow short, very close to the rocks, trading is greatly simplified because

should finally bear fruit by everyone else.

During this winter a new stock to

want to deals between dealers. These rules, impossible to describe here in detail, are

Washington is pushing toward the implementation of a trading system that will make the stock exchange floor obsolete, will

gather round the specialist on the floor of an American stock

brokers and go straight to the market makers, and encourage

the complexity of all this hard dealers themselves. The most through the third market and

a fund sale.

It is at this moment that the

fund managers talk of the simplicity of equity the next

stock market, Wall Street now faces a severe liquidity problem

that is self-reinforcing. The surprising lack of interest in Instinet,

big funds shun non-growth stocks and concentrate their blocks of stock are bro

ther there is the problem of market fragmentation that has arisen in the U.S. as the institu

tions have started to channel

the liquidity of the non-growth

superstocks; they thus reduce sale or purchase. In an

league and further add to their

advertisements a sale or a pu

so nakedly and this makes

stocks oscillate worryingly, rising at the hint of a fund pur

chase, dropping at the hint of a fund sale.

The reaction of the critics to

this situation is that the funds must be constrained to sell and buy stocks at a sober pace. It

is an irony that they would

create by regulation exactly those impediments to rapid sale

and purchase that funds met on

the exchange floor before the progressive broking houses

decided to help them with this

"block-trading" by taking positions in stock and thus becoming, in effect, dealers.

The success of NASDAQ does not give much guidance about the impact of the central market on liquidity. Most

people agree that NASDAQ has made the over-the-counter market much easier to trade in. It seems less interested in

with stock liquidity. It seems less interested in

that the system may cause greater swings in liquidity

than were experienced in the industry. There is an extra

dealers make a market in a media. These are all

imperfections and there

has decided to get out of it on knowing what effects th

research department. In the inadequacies and old days it would ask its broker

to do a smooth job on the sale an almost frictionless

and the broker could achieve that glimmers on a thousand screens across

approaches to each market country.



Glen Gorin

## Simplified

Certainly the envisaged cen

tral market has procedural

attractions. The process of trad

ing is still out of it. Institutional

investors are very much in it,

but they are now trading at cut

prices. Members of the NYSE

are losing about \$40m. a month.

The stock exchanges in New

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The stock exchanges in New

mark

The Financial Times Tuesday September 4 1973

## Vickers to hold inquiry into mini-submarine incident

MICHAEL DONNE

ERS OCEANICS, the company which built and owns the vessel (mini-submarine), was III, which was rescued from its ocean bed on Saturday, held its own technical inquiry into the incident.

The main aim will not be to pin blame to the incident, which two crewmen, Roger Shan and Roger Hallison, trapped on the bed of the sea for 72 hours, but to discover whether any changes can be made either in the way of handling or its type of handling.

The inquiry will probably take ten days, largely use the two rescued men who have given a brief "handy report" from their ordeal.

III is now on board the ship Vickers Voyager, and for Barrow-in-Furness, it will be thoroughly overhauled before being sent back engine deep-sea cable-laying operations.

A preliminary study into the operation has convinced Vickers' chiefs that the technicians employed to rescue the trapped men were justified. They does not intend to await further until its inquiry is completed, but

it is expected that it will then make a full statement.

The feeling is that the incident—which appeared to have been caused by a rope catching in a hatch-opening lever while Pisces was on the surface, causing the rear compartment to flood—does not in any way invalidate the use of submersibles this inquiry is designed to discover.

## Pensions Board chairman

BY DAVID WALKER

SIR PHILIP ALLEN, until recently Permanent Secretary at the Home Office, is to be chairman of the Occupational Pensions Board, which comes into formal existence to-morrow to administer the Government's new plans for occupational pensions, the Department of Health and Social Security confirmed yesterday.

He was chairman of the "shadow" Board set up by the Government to undertake preparatory work before the Social Security Act, 1973, was made relations adviser, and Mrs. Patricia Turner, director of the

statutory Board, whose General and Municipal Workers' Union women's department

were named yesterday. They are Miss Agnes M. Patrick, a member of Glasgow Corporation's Advisory Committee; Miss Sheila Roberts, an industrial relations adviser, and Mrs. Patricia Turner, director of the

King's Cup Air Race.

Admission to the show and the pageant is £1.



## Air show aimed at industry

By Our Aerospace Correspondent

MANY BRITISH and foreign-built light aircraft will be on show at this week's Business and Light Aviation Show at the Cranfield Institute of Technology, Bedfordshire.

The aim of the show, organised by Flight International in conjunction with the Business Aircraft Users' Association and other aviation bodies, is to encourage a greater awareness in business and industry of the advantages to companies owning their own aircraft.

Already, some 65 companies in Britain have a total fleet of about 100 light aircraft of various kinds, worth about £25m.

The BAUA is organising a seminar at Cranfield, at which semi-industrialists who do not have company aircraft will discuss the benefits. These include Mr. Angus Mackenzie-Charrington of Bass-Charrington, Sir Philip Oppenheimer of de Beers, and Mr. Mervyn Price, chairman of the international division of Unigate.

The show remains open until Thursday.

There will be a Cranfield Air Pageant, open to the public on Saturday and Sunday, including the King's Cup Air Race.

Admission to the show and the pageant is £1.

## BUSINESS OPPORTUNITIES

ACQUISITIONS & MERGERS BY AGREEMENT  
CHESHAM  
AMALGAMATIONS & INVESTMENTS LIMITED  
LICENSED DEALERS IN SECURITIES  
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A private company operating in the

## AUTOMOTIVE COMPONENTS

business is the largest independent U.K. manufacturer in its product field. An efficient sales and distribution organization has been established to serve the U.K. market through wholesale outlets. In addition major export business is being achieved throughout the world.

This company wishes to take advantage of its excellent trading position by diversification into other product fields within the automotive components supply industry. U.K. or foreign companies interested in reaching sales and distribution agreements for their products either in the U.K. market, the export market or both are invited to put forward their suggestions. All propositions will be considered and confidentiality will be respected.

(Ref: K7 566/FT)  
REPLIES will be forwarded direct, unopened and in confidence to the Managing Director of the client company. Please quote the reference number on the envelope and send to:

PA ADVERTISING LIMITED,  
2 Albert Gate, Knightsbridge,  
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We are a Company supplying facilities and we offer our customers:

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- A 7-line telephone exchange and a "great talkers" line
- Telex
- Telegraphic addresses
- Secretarial facilities
- Business assistance, where required
- Possibility of accommodating customers' trusted business collaborators, when required.

Monthly compensation to be established on a lump sum basis, according to the facilities we are requested to supply, plus postal and telegraphic expenses.

Please address enquiries to:  
Casella T-81 S.P.I. 20100 MILAN (Italy).

## WEST INDIAN PROPERTY DEVELOPMENT

A leading property development company situated in one of the most progressive Eastern Caribbean countries with all public utilities, established tourist trade and international airport is seeking active financial and developmental participation by experienced companies already on the property and well advanced with an international hotel and golf course. The existing development is of a high order with tarmac roads, mains electricity and water leaving a further 1200 acres for development.

The form of participation required would probably be acquisition by way of cash and options or specific areas for direct approved development of residential or holiday houses or condominiums.

An investment by an established property company would be free of any dollar premium and should show an excellent and secure return.

References of a high order are available and would be expected from interested parties.

Contact The Managing Director, Box E1028,  
Financial Times, 10 Cannon Street, EC4P 4BY.

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Up to 100% available now from 3½% over sterling Inter Bank rate.

## INTEREST-ONLY LOANS:

On commercial and industrial properties from 10% over 10-15 years.

Contact Britain's leading finance consultants.

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Telephone: 01-629 5051

## COTTON SPINNING/WEAVING

We are acting for an overseas client interested in acquiring a medium-size public or private company engaged in the spinning and/or weaving of cotton. The company should be preferably based in the U.K., but operations in any E.E.C. country will be considered.

Replies in strict confidence to:

C. P. Chouart, Sons & Partners Limited,  
Investment Bankers, Ashley House,  
30 Ashley Road, Altringham, Cheshire.  
Tel. No: 061-928 9011.

## EMPLOYMENT AGENCIES

Continental group seeks to acquire majority holdings in expanding employment agencies—United Kingdom or Europe. Pre-tax profits to be in £100,000 region.

Write Box E.1074, Financial Times, 10, Cannon Street, EC4P 4BY

## SCANDINAVIAN FIRM

In forging business interest in agreement or joint venture with U.K. firm to develop products. Particularly interested in applying the patented safety-hoops of the firm to complete lifting machinery, e.g. cranes. Write to "Safety Hoops", Box No. E.1037, Financial Times, 10, Cannon Street, London, EC4P 4BY.

## SEEKING INVESTMENT OPPORTUNITIES?

We are building up a select Register of serious Investors currently seeking worthwhile Investment opportunities, prior to mounting our own 1974 Search for projects and businesses with considerable development potential.

If you are interested, please write for details to:

Market Protection Limited,  
Management Consultants,  
Sheffield Industrial Estate, Rds,  
South Axholme, SLE 9WV

## INVESTMENT OPPORTUNITY

Electronics Development and Manufacturing Company seeks £15,000 to fund expansion. Opportunity exists to acquire substantial or even controlling interest. Would suit marketing company seeking new products or would provide additional capacity to £250,000 p.a. for manufacturing company. Principals only Write Box E.1059, Financial Times, 10, Cannon Street, EC4P 4BY.

For sale

Guaranteed £5,000 per annum min. Could be £20,000 p.a. upwards. Price £10,000 now. Phone (01) 587 3605 for appointment

## FIXED ROYALTY

Applications invited for any prospective franchisees to buy a fixed royalty. Minimum £10,000, no maximum. All royalties paid and strict confidentiality observed. Write giving brief details to Box E.1052, Financial Times, 10, Cannon Street, EC4P 4BY.

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fter

## STOCK EXCHANGE REPORT

## Easier undertone in markets at start of new Account Index down 4.5 at 1973 "low" of 409.9—Zambians lower

## COUNT DEALING DATES

Optus

SI Declarat. Last Account

Rings. Tons Dealing Day

13 Aug. 30 Aug. 31 Sept. 1

3 Sept. 13 Sept. 14 Sept. 2

17 Sept. 27 Sept. 28 Oct. 9

New time deadlines may take place 8 p.m. three business days earlier.

The equity and gilt-edged

markets started the two-week

out in a quiet vein yesterday.

Investment atomists continued to be fought with uneasiness in the shape of interest rates. Treasury 9 per cent. 1978, closed 1 off at 92.1,

after 92.5.

The holiday closure of several

overseas markets rather dampened

expectations for investment currency

and the premium dried lower in

small trading to 29.5 per cent.

Following a late afternoon

rallying late to close 1

down on the day at 29.3 per cent.

Yesterday's US conversion factor

was 8163 (0.8101).

In quiet Recent Equities, Wear-

well rose 3p to 57p.

Arbutinot Latham up

Home Banks failed again to

attract much support and showed

losses to 5p by the close. National

Westminster being the most

lower at 322p. Still a very sensitive

market on dearer money

worries. Discounts were marked

10p at 360p and Gillette rose

10p at 360p. Merchant Banks were

featuring by Arbutinot Latham

which jumped 5p to 400p on buying in a thin market. Apart from

Bryantson Finance, 40p better at

82p. Hire Purchases were

featureless.

Insurances showed no decided

interest in quiet trading. Sun

Alliance shied 3p to a 1973 "low"

of 387p; the interim results

are also "lows" for the year.

In the All-Share 0.7 per cent.

gain at 174.34. Official markings

named low at 6.53 against

6.1 last Friday.

Last Friday's news that Zambia

to take full control of its

over mining industry caused

other sharp falls in Nchanga

and Roan Consolidated and other

related companies. Elsewhere

Mining, gold shares were

in small demand in a thin

market helped by bullion, which

rose 1p at \$104.5 an ounce.

Gold Bullion Index rose 4

into 163.7.

Gilt slip back

Fears of renewed upward

pressures on interest rates under-

lined the recent steadier under-

ing in British Funds. Long- and

dated securities began to

rise, very shortly lost another

xd, while Man-Abell improved 5p

trend. Geo. Sturz found support

company pushed British Shells up

3p to 305.6.

Abbey Unit. Trs. Ltd. 5.20

Gilt Fund 5.20

Hamb. Nat. Nat. 5.20

Wills Ind. 5.20

Wright &amp; Co. 5.20

Whit. Ind. 5.20





## BRITISH FUNDS

	Stock	Price	or	Int.	Yield	Red.	High	Low	Stock	Price	or	Dir.	Ctr.	Vid.	PE
"Shorts" (Lives up to Five Years)									Alderman's D.	33	-5	112	34	3.8	110
971 Treasury Sept 1975	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders D.	199	-5	112	34	3.8	110
972 Treasury Sept 1976	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders F.	199	-5	112	34	3.8	110
973 Treasury Sept 1977	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders G.	199	-5	112	34	3.8	110
974 Treasury Sept 1978	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders H.	199	-5	112	34	3.8	110
975 Treasury Sept 1979	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders I.	199	-5	112	34	3.8	110
976 Treasury Sept 1980	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders J.	199	-5	112	34	3.8	110
977 Treasury Sept 1981	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders K.	199	-5	112	34	3.8	110
978 Treasury Sept 1982	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders L.	199	-5	112	34	3.8	110
979 Treasury Sept 1983	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders M.	199	-5	112	34	3.8	110
980 Treasury Sept 1984	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders N.	199	-5	112	34	3.8	110
981 Treasury Sept 1985	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders P.	199	-5	112	34	3.8	110
982 Treasury Sept 1986	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders R.	199	-5	112	34	3.8	110
983 Treasury Sept 1987	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders S.	199	-5	112	34	3.8	110
984 Treasury Sept 1988	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders T.	199	-5	112	34	3.8	110
985 Treasury Sept 1989	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders U.	199	-5	112	34	3.8	110
986 Treasury Sept 1990	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders V.	199	-5	112	34	3.8	110
987 Treasury Sept 1991	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders W.	199	-5	112	34	3.8	110
988 Treasury Sept 1992	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders X.	199	-5	112	34	3.8	110
989 Treasury Sept 1993	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders Y.	199	-5	112	34	3.8	110
990 Treasury Sept 1994	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders Z.	199	-5	112	34	3.8	110
991 Treasury Sept 1995	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders A.	199	-5	112	34	3.8	110
992 Treasury Sept 1996	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders B.	199	-5	112	34	3.8	110
993 Treasury Sept 1997	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders C.	199	-5	112	34	3.8	110
994 Treasury Sept 1998	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders D.	199	-5	112	34	3.8	110
995 Treasury Sept 1999	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders E.	199	-5	112	34	3.8	110
996 Treasury Sept 2000	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders F.	199	-5	112	34	3.8	110
997 Treasury Sept 2001	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders G.	199	-5	112	34	3.8	110
998 Treasury Sept 2002	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders H.	199	-5	112	34	3.8	110
999 Treasury Sept 2003	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders I.	199	-5	112	34	3.8	110
1000 Treasury Sept 2004	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders J.	199	-5	112	34	3.8	110
1001 Treasury Sept 2005	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders K.	199	-5	112	34	3.8	110
1002 Treasury Sept 2006	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders L.	199	-5	112	34	3.8	110
1003 Treasury Sept 2007	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders M.	199	-5	112	34	3.8	110
1004 Treasury Sept 2008	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders N.	199	-5	112	34	3.8	110
1005 Treasury Sept 2009	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders P.	199	-5	112	34	3.8	110
1006 Treasury Sept 2010	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders R.	199	-5	112	34	3.8	110
1007 Treasury Sept 2011	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders S.	199	-5	112	34	3.8	110
1008 Treasury Sept 2012	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders T.	199	-5	112	34	3.8	110
1009 Treasury Sept 2013	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders U.	199	-5	112	34	3.8	110
1010 Treasury Sept 2014	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders V.	199	-5	112	34	3.8	110
1011 Treasury Sept 2015	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders W.	199	-5	112	34	3.8	110
1012 Treasury Sept 2016	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders X.	199	-5	112	34	3.8	110
1013 Treasury Sept 2017	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders Y.	199	-5	112	34	3.8	110
1014 Treasury Sept 2018	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders Z.	199	-5	112	34	3.8	110
1015 Treasury Sept 2019	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders A.	199	-5	112	34	3.8	110
1016 Treasury Sept 2020	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders B.	199	-5	112	34	3.8	110
1017 Treasury Sept 2021	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders C.	199	-5	112	34	3.8	110
1018 Treasury Sept 2022	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders D.	199	-5	112	34	3.8	110
1019 Treasury Sept 2023	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders E.	199	-5	112	34	3.8	110
1020 Treasury Sept 2024	98	15.33	10.89	36	23	1.50	15.33	15.25	Alfred Anders F.	199	-5	112	34	3.8</	



